MONTHLY WEATHER REVIEW.

HENRY E. WILLIAMS, Acting Chief U. S. Weather Bureau.

Vol. 41. JUNE, 1913. No. 6.

Editor, P. C. DAY, Climatologist and Chief of Division.

DISTRICT EDITORS.

District No. 1, North Atlantic States.
Prof. Wilford M. Wilson, Ithaca, N. Y.
District No. 2, South Atlantic and east Gulf States.
Charles F. von Herrmann, Atlanta, Ga.
District No. 3, Ohio Valley.
Prof. Ferdinand J. Walz, Louisville, Ky.
District No. 4, Lake region.
Prof. Henry J. Cox, Chicago, Ill.
District No. 5, Upper Mississippi Valley.
George M. Chappel, Des Moines, Iowa.
District No. 6, Missouri Valley.
Montrose W. Hayes, St. Louis, Mo.
District No. 7, Lower Mississippi Valley.
Isaac M. Cline, New Orleans, La.
District No. 8, Texas and Rio Grande Valley.
Bernard Bunnemeyer, Houston, Tex.
District No. 9, Colorado Valley.
Frederick H. Brandenburg, Denver, Colo.
District No. 10, Great Basin.
Alfred H. Thiessen, Salt Lake City, Utah.
District No. 11, California.
Prof. Alexander G. McAdie, San Francisco, Cal.
District No. 12, Columbia Valley.
Edward A. Beals, Portland, Oreg.

CONTRIBUTING CORRESPONDENTS.

Summaries of weather conditions and meteorological data are contributed by the directors of the following meteorological and other services:

The Meteorological Service of the Dominion of Canada.
The Central Meteorological and Magnetic Observatory of Mexico.
The Meteorological Service of Cuba.
The Meteorological Observatory of Belen College, Habana.
The Government Meteorological Office of Jamaica.
The Meteorological Service of the Azores.
The Meteorological Office, London.
The Danish Meteorological Institute, Copenhagen, Denmark.
The Physical Central Observatory, St. Petersburg, Russia.
The Philippine Weather Bureau, Manila.
The General Superintendent of the United States Life-Saving Service.
The Director-General of Mexican Telegraphs.

Contributions for the MONTHLY WEATHER REVIEW concerning agriculture, transportation, water uses and resources, forestry, and similar practical subjects, should be addressed to the editors of the several districts interested in the subjects. The post-office addresses are at the U. S. Weather Bureau local offices in the cities mentioned

Contributions for the MONTHLY WEATHER REVIEW from foreign correspondents should be addressed to the Chief, U. S. Weather Bureau, Washington, D. C.

Papers on general meteorology should also be addressed to the Chief of the Bureau.

Price of a single copy, 35 cents; $4.00 per year. Foreign postage additional. District separates, 5 cents each.

CONTENTS.

PART I.—CLIMATOLOGY.

1. Climatological Summaries, Tables, Maps. } Complete for each district; also issued as separates.

PART II.—METEOROLOGY.

2. Weather, forecasts and warnings for the month.
3. Rivers and floods.
4. Special papers on general meteorology.

PART III.—GENERAL TABLES AND CHARTS.

5. General Tables.
   - I. Climatological data for U. S. Weather Bureau stations.
   - II. Accumulated amounts of precipitation.
   - III. Data furnished by the Canadian Meteorological Service.

Part III.—GENERAL TABLES AND CHARTS—*Continued.*

6. General Charts.
   - I. Hydrographs of several principal rivers.
   - II. Tracks of centers of high areas.
   - III. Tracks of centers of low areas.
   - IV. Temperature departures from the normal.
   - V. Total precipitation.
   - VI. Percentage of clear sky between sunrise and sunset.
   - VII. Isobars and isotherms at sea level; prevailing winds.

CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 1, NORTH ATLANTIC STATES.

Prof. WILFORD M. WILSON, District Editor.

GENERAL SUMMARY.

Several features of unusual significance occurred within June, 1913, chief of which were the low temperatures of the 9th and 10th, the hot weather that followed within the next week, and the great deficiency in rainfall that affected most of the district.

Killing frosts occurred quite extensively in the northern States and in scattered places even as far south as Virginia. So extensive a freeze in June has probably not occurred in the district for 20 years or more. At Albany, N. Y., the temperature reached the lowest point of record for June in the last 40 years, while the minimum temperatures at other points were scarcely less remarkable. Harrisburg, Atlantic City, and Philadelphia each recorded temperatures within 1° of the lowest known for June, the records covering, respectively, 25, 40, and 43 years. Ice formed at Dale Enterprise, Va., and the temperature was the lowest ever recorded there in June, the records of that station covering 34 years.

Hot weather prevailed from the 14th to the 17th and much suffering resulted. A second hot wave of considerable intensity developed toward the close of the month, culminating about the 30th.

A period of unusually dry weather extended from the 8th to the 19th or 20th, during which time there was no rainfall of consequence, and the showers that occurred later in the month were not sufficient to bring the soil to a normal condition with respect to moisture.

The following table exhibits the leading features of meteorological interest for the various sections of the district:

States or parts of States within district No. 1.	Temperature.				Precipitation.				Average number of—	
	Average.	Departure.	Highest.	Lowest.	Average.	Departure.	Greatest total.	Least total.	Rainy days.	Clear days.
New England	63.5	−1.0	95	27	1.28	−1.82	3.31	0.10	5	18
New York	65.0	0.0	99	22	1.70	−2.18	5.23	0.48	6	20
Pennsylvania	68.6	+0.3	99	28	1.87	−1.96	4.07	0.66	7	19
New Jersey	69.1	−0.1	98	31	1.80	−2.04	3.76	0.68	5	19
Maryland, Delaware, and District of Columbia	71.7	+0.6	100	34	2.15	−1.84	5.06	0.78	7	17
West Virginia	68.6	+1.3	99	29	3.69	−1.29	5.88	1.14	9	14
Virginia	71.1	−0.2	98	35	3.37	−1.41	6.44	0.95	8	15

TEMPERATURE.

The average temperature for the district as a whole was about 68° and the number of stations reporting an excess in temperature was nearly equal to the number reporting a deficiency. At most places the monthly mean temperature was very close to the June normal. The highest monthly mean temperature at any station in the district was 74.8°, at Woodstock, Md., and the lowest was 54.8°, at Van Buren, Me.

Temperature changes were frequent and very pronounced. After the record-breaking low temperatures of June 9 and 10 the weather rapidly became warmer, and by the 14th the temperatures were unusually high. The warmest day, however, in most places was the 16th, when maximum temperatures were between 90° and 100° over the greater part of the district. From the 9th to the 16th daily mean temperatures ranged from more than 15° below the normal to nearly as much above the normal. At Binghamton, N. Y., the mean temperature for the 9th was 22° below normal, a departure almost as great as the most remarkable observed in the extreme conditions of winter months.

Moderate temperatures were the rule after the 17th, except on the last 4 days, when the heat again became oppressive in some sections.

PRECIPITATION.

The average amount of rainfall for the district was not more than 2 inches and not many stations received more than that amount in New England, New York, or New Jersey. The greatest rainfall for the month was 6.44 inches, at Woodstock, Va., and the least was only 0.10 inch, at Bar Harbor, Me., and Concord, N. H. There were but few instances of heavy or destructive local storms compared with the number usually experienced in June, and only 3 stations in the district reported instances of rainfall that equaled or exceeded the rate termed "excessive," 2.50 inches within 24 hours.

The rainfall of the month was somewhat peculiar in the fact that the number of days with precipitation was nearly as great as usual for June, though the total amount of rainfall averaged only about half the normal.

The great extent of serious drought conditions is clearly indicated by the large number of stations where less than 1 inch of rainfall was recorded, as may be seen from an inspection of the tables. Rainfall was greatest in the southern part of the district and diminished toward the north.

River stages were moderate at the beginning of the month, but became quite low by the 20th, when the principal rainy period began.

SUNSHINE AND MISCELLANEOUS.

The number of clear days and the percentage of possible sunshine averaged greater than in any other month of this year and exceeded also the records for every month of last year. The percentage of possible sunshine averaged 72, and ranged from 59 at Mount Weather, Va., to 79 at New Haven, Conn. Expressed in hours, the sunshine for the month at representative stations averaged 328, or practically 11 hours a day. The number of days with 0.01 inch or more of rainfall averaged 7, clear days averaged 18, partly cloudy days 9, and cloudy days 3.

TABLE 1.—*Climatological data for June, 1913. District No. 1, North Atlantic States.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
Maine.																				
Bar Harbor	Hancock	20	27	59.6	− 0.5	86	27	34	1	35	0.10	− 2.69	0.10	0	1	19	9	2	sw.	William Miller.
Cornish	York	778	58	64.0	− 1.2	92	27	35	9†	43	0.93	− 2.70	0.30	0	6	15	10	5	w.	T. H. West.
Eastport	Washington	53	41	56.4	+ 2.0	80	11	43	1	31	0.71	− 2.53	0.16	0	12	10	15	5	s.	U. S. Weather Bureau.
Fairfield	Somerset	90	28	61.4	− 2.0	88	27	33	10	40	0.21	− 2.57	0.14	0	3	23	1	6	.....	E. F. Parker.
Farmington	Franklin	450	16	62.2	− 0.3	90	27	37	10	42	0.79	− 2.84	0.35	0	8	19	8	3	nw.	State Normal School.
Gardiner	Kennebec	163	21	61.2	− 4.0	89	27	35	10	40	1.10	− 1.30	0.41	0	10	19	6	5	sw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	9	57.0	.....	82	27	32	10	....	1.82	.....	0.74	0	9	....	....	....	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	11	59.1	.....	84	28	32	12	42	1.21	− 1.94	0.60	0	4	22	0	8	ne.	Bangor & Aroostook R. R.
Lewiston	Androscoggin	185	39	61.8	− 2.6	89	27	43	10	35	1.20	− 2.36	0.56	0	6	13	10	7	nw.	Union Water Power Co.
Madison	Somerset	257	10	60.4	.....	89	28	37	9	36	1.40	− 2.90	0.35	0	9	....	....	....	nw.	William Jardine.
Millinocket	Penobscot	386	10	61.7	.....	89	27	33	1†	45	1.04	− 2.25	0.56	0	7	17	6	7	nw.	F. C. Bowler.
North Bridgton	Cumberland	450	20	63.6	− 1.0	94	27	39	10	47	1.40	− 2.35	0.59	0	4	8	18	4	nw.	G. E. Chadbourne.
Orono	Penobscot	129	44	61.3	− 1.0	87	28	34	10	40	1.38	− 2.16	0.33	0	8	15	10	5	sw.	Department of physics.
Patten	do.	550	11	59.2°	.....	90°	27	29°	23	48	1.64	.....	1.00	0	2	16°	5°	4°	sw.	Bangor & Aroostook R. R.
Portland	Cumberland	99	42	62.2	− 0.4	91	27	46	1	33	0.59	− 2.77	0.39	0	7	14	10	6	s.	U. S. Weather Bureau.
Presque Isle	Aroostook	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. M. Libby.
Rumford Falls	Oxford	505	20	61.4	− 2.2	89	27	38	9†	38	1.08	− 2.34	0.56	0	6	21	7	2	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	8	54.8	.....	82	27	29	22	41	2.37	.....	0.60	0	11	15	8	7	w.	J. M. Thomas.
Winslow	Kennebec	90	18	62.6	− 0.1	90	27	37	9	41	0.92	− 2.29	0.42	0	8	22	6	2	w.	Hollingsworth & Whitney Co.
New Hampshire.																				
Alstead Center	Cheshire	1,120	9	62.8	.....	87	27	36	9	37	0.23	.....	0.11	0	6	22	4	4	sw.	Frank Dewing.
Benton	Grafton	.....	4	59.6	.....	85	28	32	10	38	1.84	.....	0.82	0	8	13	13	4	nw.	State Sanatorium.
Bethlehem	do.	1,470	21	59.6	− 3.9	86	27	33	8†	39	2.24	− 1.64	0.64	0	8	16	9	5	w.	Benjamin Tucker.
Concord	Merrimack	350	53	63.1	− 1.3	91	27	37	9†	41	0.10	− 3.24	0.07	0	3	14	10	6	nw.	U. S. Weather Bureau.
Durham	Stafford	88	18	63.0	− 1.3	91	27†	37	9	44	0.20	− 2.88	0.20	0	1	22	2	6	nw.	Agricultural Exp. Station.
Franklin	Merrimack	440	14	64.2	+ 0.9	93	27	33	9	46	0.72	− 3.32	0.28	0	8	21	7	2	nw.	Dr. C. P. Webster.
Grafton	Grafton	863	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	P. R. Kimball.
Hanover	do.	603	79	62.8	− 2.2	90	27	32	10	44	0.94	− 2.46	0.33	0	9	9	15	6	sw.	Dartmouth College.
Keene	Cheshire	506	28	63.5	− 1.4	91	16†	30	10	47	0.41	− 3.15	0.14	0	5	22	6	2	sw.	Samuel Wadsworth.
Nashua	Hillsboro	125	28	66.6	+ 0.3	92	16†	38	10	43	0.73	− 1.97	0.57	0	3	....	....	....	.....	Jackson Co.
Newton	Rockingham	.....	25	62.6	− 1.9	90	16†	35	10	46	0.28	− 2.70	0.18	0	3	15	13	2	sw.	W. C. Gale.
Plymouth	Grafton	500	25	61.8	− 2.4	89	16	32	10	46	0.99	− 2.44	0.33	0	5	17	3	10	w.	Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	.....	6	59.7	.....	86	28	31	10	46	1.82	.....	0.59	0	8	19	7	4	s.	Lyman Falls Power Co.
Cavendish	Windsor	910	10	63.2	.....	92	27	29	9	47	0.52	.....	0.23	0	5	24	4	2	w.	E. D. Kingsbury.
Chelsea	Orange	840	18	60.0	− 1.3	94	27	27	10	45	1.80	− 0.59	0.55	0	7	15	11	4	n.	W. F. Dewey.
Manchester	Bennington	980	14	62.6	.....	85	27	35	9†	35	0.47	.....	0.41	0	3	21	8	1	sw.	N. M. Canfield.
Somerset	Windham	2,096	1	59.0	.....	85	27	27	9†	46	0.91	.....	0.51	0	5	18	8	4	sw.	J. Albert Holmes.
St. Johnsbury	Caledonia	711	20	61.6	− 2.4	87	27	32	10	42	1.40	− 1.63	0.48	0	7	11	15	4	w.	Fairbanks Museum.
Woodstock	Windsor	700	21	63.4	− 1.6	88	16†	32	9†	41	0.57	− 2.53	0.34	0	3	17	9	4	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	24	66.0	− 0.2	92	16	37	10	40	0.90	− 2.84	0.47	0	6	15	13	2	nw.	Agricultural Exp. Station.
Blue Hill	Norfolk	640	29	62.3	− 2.0	87	16	42	10	31	3.20	+ 0.38	1.68	0	7	15	5	10	sw.	Blue Hill Observatory.
Boston	Suffolk	124	43	67.5	+ 1.7	91	16	47	10	30	0.64	− 2.39	0.34	0	5	17	9	4	sw.	U. S. Weather Bureau.
Chestnut Hill	do.	124	33	66.8	− 0.1	91	16†	45	10	35	1.04	− 2.23	0.38	0	5	26	0	4	.....	Metropolitan Water Board.
Clinton	Worcester	370	17	65.0	.....	86	16†	41	9	34	1.03	.....	0.53	0	3	....	....	....	.....	Do.
Concord	Middlesex	139	23	63.9	− 0.5	89	16	36	10	36	1.63	− 1.58	0.95	0	5	14	12	4	s.	Fred A. Tower.
Fall River	Bristol	200	47	65.2	− 0.6	86	16	45	9†	27	1.05	− 1.21	0.35	0	6	15	13	2	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	30	66.3	− 0.3	91	16	41	10	37	0.44	− 2.39	0.27	0	3	22	4	4	w.	Dr. A. P. Mason.
Framingham	Middlesex	160	33	66.3	− 0.8	90	16†	39	10	39	2.02	− 0.72	0.91	0	4	....	....	....	.....	Metropolitan Water Board.
Hyannis**	Barnstable	31	22	63.4	− 2.5	86	16	43	10	30	0.87	− 1.44	0.40	0	6	20	4	4	sw.	C. F. Sleeper.
Lawrence	Essex	51	29	65.9	+ 2.3	91	16	43	10	36	2.18	− 1.02	1.55	0	5	16	12	2	s.	Essex Co.
Lowell	Middlesex	100	28	67.4	+ 0.6	89	16†	41	10	35	2.12	− 0.17	1.89	0	4	....	....	....	.....	Props. Locks & Canals.
Middleboro	Plymouth	53	27	63.6	− 0.4	88	16	37	10	35	1.17	− 1.47	0.48	0	6	9	13	8	sw.	A. R. Gurney.
Nantucket	Nantucket	47	27	60.7	− 0.6	78	14	47	6	24	1.59	− 0.82	0.70	0	6	17	8	5	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	101	65.0	+ 1.0	89	16	44	10	32	0.63	− 2.47	0.25	0	4	22	4	4	sw.	City engineer.
Norfolk	Norfolk	244	10	63.6	.....	89	16†	33	10	45	1.41	.....	0.76	0	4	18d	4d	4d	e.	Ruby H. Martyn.
Plymouth	Plymouth	.....	28	62.9	.....	88	17	40	10	35	2.27	.....	0.63	0	5	25	3	2	e.	Laura B. Knapp.
Provincetown	Barnstable	40	26	63.2	− 0.6	82	28	47	10	32	1.47	− 1.19	0.65	0	6	25	0	5	sw.	Gideon Bowley.
Rockport	Essex	25	11	62.2	.....	86	16	45	13	31	2.02	.....	1.75	0	4	16	9	5	sw.	C. F. P. Bearse.
Rutland	Worcester	1,160	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	State Sanatorium.
Turners Falls	Franklin	200	22	66.0	− 0.2	89	6†	38	10	37	0.67	− 2.64	0.49	0	4	14	12	4	.....	Turners Falls Co.
Westboro	Worcester	298	39	69.1	+ 1.5	92	16†	40	10	41	1.87	− 1.02	1.20	0	3	....	....	....	.....	G. S. Newcomb.
Williamstown	Berkshire	711	32	64.8	− 0.8	87	16†	35	10	38	0.87	− 2.48	0.36	0	6	15	12	3	nw.	Williams College.
Worcester	Worcester	518	21	66.4	− 0.5	90	30	48	9	28	2.14	− 0.82	1.10	0	5	20	6	4	sw.	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	33	62.4	+ 0.8	81	17	48	9	26	0.73	− 1.14	0.30	0	6	17	6	7	sw.	U. S. Weather Bureau.
Bristol	Bristol	53	27	64.0	− 0.8	83	14†	46	10	27	1.09	− 1.31	0.79	0	5	22	7	1	sw.	N. G. Herreshoff.
Kingston	Washington	250	24	62.7	− 1.8	88	16	40	10	37	1.45	− 1.18	0.92	0	5	18	9	3	sw.	Nathaniel Helme.
Narragansett Pier	Newport	22	31	62.8	− 1.6	86	14	43	10	33	1.27	− 1.04	0.60	0	6	22	3	5	sw.	U. S. Weather Bureau.
Providence	Providence	182	9	65.8	− 2.5	89	16	46	10	30	1.19	− 1.84	0.39	0	5	16	11	3	s.	Do.
Connecticut.																				
Bridgeport	Fairfield	20	20	67.9	.....	95	16	45	10†	39	1.53	.....	0.40	0	6	19	9	2	sw.	William Jennings.
Canton	Hartford	900	52	66.2	+ 1.0	89	16	39	10†	39	0.72	− 3.33	0.37	0	5	20	7	3	sw.	G. J. Case.
Colchester	New London	370	27	65.9	− 0.2	90	16	38	10	38	1.70	− 0.88	0.54	0	5	17	7	6	w.	S. P. Willard.
Cream Hill	Litchfield	1,300	17	64.6	− 0.8	87	16	36	9	36	1.67	− 2.81	0.92	0	6	23	4	3	nw.	C. L. Gold.
Danielson	Windham	300	11	66.4	.....	90	16	41	10	32	2.02	.....	1.10	0	6	21	8	1	s.	F. E. Bitgood.
Hartford	Hartford	159	9	67.6	− 0.5	90	16	42	10	29	2.07	− 1.01	1.54	0	7	14	9	7	s.	U. S. Weather Bureau.
Hawleyville	Fairfield	600	15	65.6	− 0.6	88	16	38	10	38	1.33	− 2.55	0.54	0	4	20	8	2	nw.	C. B. Hawley.
New Haven	New Haven	127	126	67.6	+ 0.7	92	16	44	10	32	1.09	− 2.08	0.36	0	5	15	10	5	s.	U. S. Weather Bureau.
New London	New London	47	43	67.8	+ 2.3	93	16	44	10	36	1.04	− 1.95	0.35	0	5	13	13	4	sw.	Thos. C. Dillon.
North Grosvenor Dale	Windham	400	23	65.3	− 0.7	90	16	37	9	38	2.79	− 0.14	1.04	0	6	22	5	3	sw.	Grosvenor Dale Co.
Norwalk	Fairfield	116	23	67.4	− 0.4	93	16	40	10	40	0.75	− 1.47	0.30	0	5	20	7	3	sw.	George C. Comstock.
Southington	Hartford	140	44	65.4	− 1.8	89	16	36	10	37	2.15	− 0.75	0.70	0	5	18	11	1	s.	Luman Andrews.
Storrs	Tolland	640	25	64.8	− 0.1	87	16†	41	10	34	2.32	− 0.21	1.05	0	6	19	7	4	s.	Agricultural Exp. Station.
Torrington	Litchfield	625	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. E. H. Forbes.
Voluntown	New London	260	28	62.7	− 3.2	89	16	32	10	43	1.39	− 1.34	0.96	0	4	20	9	1	sw.	J. L. Herbert.
Waterbury	New Haven	400	38	67.4	− 0.2	92	16	38	10	40	3.31	+ 0.46	1.36	0	5	....	....	....	.....	N. J. Welton.

TABLE 1.—*Climatological data for June, 1913. District No. 1*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
New York.																				
Addison	Steuben	1,000	23	65.6	− 0.5	96	30	30	10	46	5.23	+ 1.42	2.61	0	8	23	4	3	sw.	Dr. H. R. Ainsworth.
Albany	Albany	97	92	67.8	− 0.1	93	30	40	9	37	1.71	− 2.05	1.04	0	8	20	8	2	s.	U. S. Weather Bureau.
Alfred	Allegany	1,976	18	62.2	− 2.0	90	27	28	9	43	2.16	− 1.89	0.70	0	8					F. S. Place.
Amsterdam	Montgomery	277	9	65.2	.....	92	30	33	9	41	1.11	.....	0.38	0	5	25	2	3	w.	Emery Elwood.
Athens	Greene	90	11	67.2	+ 1.1	93	16	38	9	38	1.56	− 2.90	0.54	0	7	17	11	2	nw.	E. C. Brooks.
Ballston Lake	Saratoga	400	9	63.6	.....	89	30	33	9	42	0.91	.....	0.38	0	6	22	6	2	s.	George R. Schauber.
Bedford	Westchester	450	22	68.5	+ 1.9	99	16	40	10	40	1.25	− 2.26	0.50	0	5	16	11	3	.....	Dr. L. Rosenberg.
Beerston	Delaware	1,214	1	62.4	.....	91	16	22	9	47	2.35	.....	1.34	0	8	25	2	3	w.	John Q. Barlow.
Binghamton	Broome	875	22	63.6	− 2.6	90	30	31	9	40	0.81	− 2.78	0.38	0	9	11	11	8	sw.	U. S. Weather Bureau.
Bouckville	Madison	1,350	16	63.0	− 0.1	88	25†	32	9	41	2.29	− 1.77	0.60	0	12	12	9	9	nw.	L. W. Griswold.
Boyds Corners	Putnam	560	31	.....	.....	.....	.....	.....	.....	.....	0.93	− 3.05	.....	.....	.....	.....	.....	.....	.....	Thomas Manning.
Carmel	do	500	21	66.4	− 1.5	89	14†	40	10	39	0.88	− 3.03	0.34	0	5	23	3	4	nw.	Do.
Chatham	Columbia	470	12	66.1	+ 1.2	93	30	34	9	40	1.15	− 3.84	0.38	0	9	23	5	2	n.	Morton R. Tank.
Cooperstown	Otsego	1,250	59	61.4	− 2.6	86	30	30	9	39	2.55	− 1.65	0.60	0	9	24	5	1	w.	Miss Elizabeth Keese.
Corinth	Saratoga	542	11	.....	.....	.....	.....	.....	.....	.....	1.10	.....	0.48	0	4	.....	.....	.....	.....	A. M. Hollister.
Cortland	Cortland	1,129	51	63.8	+ 0.9	90	25†	29	9	41	2.21	− 2.11	0.75	0	9	21	5	4	nw.	F. G. Baker.
Cutchogue	Suffolk	32	14	67.6	+ 1.2	89	16†	46	9	33	0.75	− 2.39	0.33	0	4	19	11	0	sw.	William A. Fleet.
De Ruyter	Madison	1,300	10	60.2	− 1.3	87	25	29	9	40	2.76	− 1.34	0.67	0	11	20	3	7	nw.	B. D. Crandall.
Elmira	Chemung	863	30	66.4	− 1.7	95	30	32	9	38	2.96	− 1.03	1.27	0	5	19	7	4	ne.	Thurber A. Brown.
Glens Falls	Warren	340	22	66.5	0.0	92	30	35	9	45	1.19	− 2.76	0.46	0	7	19	3	8	sw.	Prof. C. L. Williams.
Gloversville	Fulton	850	21	64.0	− 0.6	88	30	34	9	44	1.63	− 2.70	0.56	0	7	23	5	2	w.	W. L. McLean.
Greenfield Center	Saratoga	314	15	64.6	− 1.0	90	30	32	9	41	1.11	− 2.58	0.46	0	5	22	6	2	sw.	S. E. Darrow.
Greenwich	Washington	425	16	67.8	− 2.4	94	30	35	8	41	0.88	− 2.45	0.43	0	4	22	7	1	s.	Homer J. Whitcomb.
Griffin Corners	Delaware	2,260	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Harold O. Judd.
Haskinville	Steuben	.....	18	.....	.....	.....	.....	.....	.....	.....	3.97	+ 0.40	0.93	0	7	.....	.....	.....	.....	W. G. Collins.
Homer	Cortland	1,096	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Charles C. Mortimer.
Hoosick Falls	Rensselaer	410	11	.....	.....	.....	.....	.....	.....	.....	1.21	.....	0.73	0	4	.....	.....	.....	.....	Sanford L. Cluett.
Indian Lake	Hamilton	1,705	14	59.8	− 0.7	87	25†	26	10	50	0.48	− 3.72	0.18	0	5	21	5	4	n.	Lester Severie, jr.
Jeffersonville	Sullivan	1,240	10	64.8	.....	91	16	33	10	43	1.20	.....	0.74	0	4	25	4	1	w.	Charles Wilfert, jr.
Liberty	do	2,300	31	59.6	− 3.4	85	16†	34	2	40	1.47	− 3.38	0.67	0	4	24	3	3	nw.	Dr. H. M. King.
Little Falls	Herkimer	924	15	63.6	− 0.1	90	30	33	9	37	1.53	− 3.11	0.55	0	6	26	1	3	w.	O. J. Dempster.
Mohonk Lake	Ulster	1,245	17	66.8	+ 2.1	88	16†	39	9	27	1.85	− 2.21	1.30	0	2	21	8	1	s.	Daniel Smiley.
Morehouseville	Hamilton	1,697	5	57.8	.....	85	25	24	9	46	2.70	.....	1.40	0	4	26	2	2	w.	Theo. C. Remonda.
Morrisville	Madison	1,325	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	.....	.....	.....	.....	.....	Prof. I. M. Charlton.
Mount McGregor	Saratoga	1,060	1	64.8	.....	87	30	38	9	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. S. Stanton.
Mount Hope	Westchester	200	16	71.0	+ 2.9	99	16	47	9	42	1.37	− 2.56	0.77	0	4	16	14	0	.....	W. A. Cornelius.
Newark Valley	Tioga	825	26	.....	.....	.....	.....	.....	.....	.....	1.14	− 2.72	0.49	0	6	.....	.....	.....	.....	Lyman D. Clinton.
New Berlin	Chenango	1,090	6	.....	.....	.....	.....	.....	.....	.....	1.28	.....	0.42	0	6	.....	.....	.....	.....	Chas. F. Sarle.
New Lisbon	Otsego	1,234	23	59.7	− 1.9	87	16	25	9	42	2.05	− 1.80	0.80	0	6	17	7	6	nw.	G. A. Yates.
New York City	New York	314	88	69.2	+ 0.7	91	16	47	9	30	1.43	− 1.83	0.77	0	4	13	11	6	sw.	U. S. Weather Bureau.
North Creek	Warren	1,002	5	64.4	.....	85	16†	36	10	38	0.94	.....	0.60	0	3	25	4	1	nw.	W. G. Kenwell.
Northville	Fulton	742	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	P. C. Pickard.
Oneonta	Otsego	1,112	19	65.3	+ 0.2	95	16	30	10	48	1.11	− 2.85	0.54	0	4	24	2	4	sw.	H. W. Lee.
Oxford	Chenango	916	48	62.8	− 1.3	88	16†	32	9	41	1.21	− 2.89	1.01	0	4	18	11	1	w.	J. P. Davis.
Oyster Bay	Nassau	40	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Thos. Colby.
Port Jervis	Orange	470	29	68.6	+ 1.2	94	16	36	9†	43	1.57	− 2.46	0.91	0	5	22	7	1	nw.	W. H. Nearpass.
Roslyn	Nassau	215	1	68.2	.....	93	14	42	10	38	1.45	.....	0.70	0	5	23	5	2	sw.	C. H. Hechler.
Salisbury	Herkimer	1,526	16	60.4	− 2.1	84	25†	26	9	37	1.47	− 3.86	0.44	0	5	25	4	1	w.	Joseph Ryan.
Scarsdale	Westchester	200	9	67.8	.....	90	16	43	10	32	1.10	.....	0.60	0	2	29	1	0	sw.	C. H. Wilmarth.
Setauket	Suffolk	40	28	66.6	+ 0.2	89	16	46	11	31	0.90	− 1.91	0.28	0	6	20	6	4	s.	Selah B. Strong.
Sherburne	Chenango	.....	6	.....	.....	.....	.....	.....	.....	.....	1.72	.....	0.47	0	7	.....	.....	.....	.....	D. G. Trow.
Southampton	Suffolk	36	12	65.0	+ 1.1	86	14	46	9†	34	1.03	− 2.09	0.45	0	6	18	12	0	sw.	W. L. Jagger.
Southeast Reservoir	Putnam	310	18	.....	.....	.....	.....	.....	.....	.....	1.14	− 3.21	.....	.....	.....	.....	.....	.....	.....	Thomas Manning.
South Edmeston	Otsego	1,300	1	61.9	.....	90	16	28	9	47	2.11	.....	0.56	0	6	21	6	3	nw.	F. H. Bilderbeck.
SpierFalls	Saratoga	400	12	64.9	+ 1.0	95	27	32	8	43	0.84	− 3.42	0.40	0	3	12	14	4	s.	George E. Fifield.
Trenton Falls	Oneida	751	10	.....	.....	.....	.....	.....	.....	.....	2.34	.....	0.84	0	8	.....	.....	.....	.....	C. W. Young.
Tribeshill	Montgomery	268	10	.....	.....	.....	.....	.....	.....	.....	1.70	.....	1.20	0	4	.....	.....	.....	.....	R. S. Marshall.
Utica	Oneida	537	47	.....	.....	.....	.....	.....	.....	.....	1.92	− 2.23	0.38	0	9	.....	.....	.....	.....	W. E. Young.
Wading River	Suffolk	112	7	66.2	.....	93	16	40	11	39	0.86	.....	0.57	0	3	25	5	0	sw.	H. B. Fullerton.
Wappingers Falls	Dutchess	110	23	67.4	− 1.0	90	16	41	10	32	1.72	− 2.73	0.75	0	6	23	6	1	s.	H. C. Townsend.
Warwick	Orange	538	19	.....	.....	.....	.....	.....	.....	.....	2.22	− 1.46	1.62	0	5	22	6	2	.....	John W. Sly.
Waverly	Tioga	824	31	67.6	+ 1.2	95	16	28	9	47	4.37	+ 0.81	2.62	0	6	12	14	4	nw.	J. F. Shoemaker.
West Berne	Albany	946	14	63.1	− 1.7	88	15	30	9	48	2.89	− 0.45	0.97	0	5	19	8	3	w.	W. J. Haverly.
West Point	Orange	167	64	71.4	+ 1.9	96	16	45	10	36	1.34	− 2.17	0.52	0	4	16	11	3	sw.	U. S. Military Acad.
Windham	Greene	1,520	13	63.4	+ 0.6	87	16	31	10	43	2.32	− 1.90	1.03	0	7	17	11	2	nw.	A. R. Mott.
Pennsylvania.																				
Altoona	Blair	1,181	25	67.4	+ 1.0	91	16	34	9	37	1.96	− 1.94	1.08	0	10	23	6	1	w.	S. A. Gailey.
Bethlehem	Northampton	260	12	70.9	+ 0.2	94	16	42	10	34	1.81	− 2.60	0.94	0	5	19	10	1	sw.	Chas. H. Rominger.
Catawissa	Columbia	470	4	67.9	.....	91	16	36	10	38	1.75	.....	0.68	0	11	17	9	4	.....	Wm. G. Yetter.
Drifton	Luzerne	1,633	15	64.6	− 0.9	90	15	32	9	39	2.37	− 1.69	1.17	0	6	20	10	0	w.	Eckley B. Coxe, jr.
Doylestown	Bucks	347	23	.....	.....	.....	.....	.....	.....	.....	1.95	.....	0.82	0	3	.....	.....	.....	.....	Alfred W. Walton.
Emporium	Cameron	1,050	26	64.5	− 2.3	90	16	28	10	45	2.94	− 1.44	0.74	0	8	18	10	2	w.	T. B. Lloyd.
Ephrata	Lancaster	384	13	68.9	+ 0.4	93	16	36	9	35	1.60	− 2.72	0.88	0	5	20	6	4	w.	W. L. Frantz.
Everett	Bedford	1,080	15	67.8	+ 0.8	92	16	32	10	39	2.21	− 2.68	0.95	0	6	15	13	2	nw.	B. L. Steckman.
George School	Bucks	184	6	68.4[a]	.....	93	16	39	9†	47[a]	1.29	.....	0.72	0	5	21[a]	7[a]	1[a]	sw.	N. W. Swayne.
Gettysburg	Adams	600	39	70.7	+ 1.7	99	16	39	11	42	1.39	− 2.29	0.70	0	7	14	13	3	sw.	Col. E. B. Cope.
Gordon	Schuylkill	804	9	65.8	.....	92	16	30	9†	45	2.04	.....	0.82	0	8	26	2	2	w.	Capt. J. G. Johnson.
Hamburg	Berks	380	17	68.2	− 2.1	95	15	36	1	37	1.51	− 2.22	0.87	0	3	14	14	2	nw.	W. J. Kalbach.
Hanover	York	600	9	71.6	.....	97	16	39	10	41	0.67	.....	0.24	0	6	22	4	4	s.	Miss Mabel Champlin.
Harrisburg	Dauphin	361	25	71.4	+ 1.1	96	16	44	9	31	1.07	− 2.48	0.49	0	12	13	8	9	nw.	U. S. Weather Bureau.
Huntingdon	Huntingdon	650	25	68.8	+ 0.4	96	16	30	10	48	3.18	− 1.22	0.92	0	8	16	11	3	w.	Prof. W. J. Swigart.
Hyndman	Bedford	977	6	69.6	.....	96	16	35	10	43	1.25	.....	0.31	0	9	23	2	5	nw.	H. Somers Fischer.
Lancaster	Lancaster	255	20	71.1	.....	98	15	36	9	47	2.35	− 0.87	1.20	0	5	23	6	1	s.	F. H. Shaw.
Lawrenceville	Tioga	1,006	15	64.8	− 1.1	94	16†	28	9†	46	2.00	− 2.31	1.00	0	3	18	10	2	.....	C. P. Darling.
Lebanon	Lebanon	458	26	74.4	+ 5.1	98	16	35	10	42	0.66	− 3.35	0.45	0	6	22	6	2	sw.	Harry M. Schott.
LeRoy	Bradford	1,400	24	65.2	− 0.6	90	16	33	9	30	1.16	− 2.90	0.72	0	8	21	6	3	sw.	G. W. T. Warburton.
Lewisburg	Union	450	39	68.9[b]	− 0.2	91[b]	16	34	10	45	2.97	− 1.24	1.24	0	8	28	2	0	sw.	Prof. W. G. Owens.
Lock Haven	Clinton	560	25	69.5	− 0.5	96	17	34	10	45	3.83	− 0.42	1.90	0	9	16	13	1	w.	Prof. J. A. Robb.
Marion	Franklin	640	9	71.4	.....	98	16	36	10	46	1.35	.....	0.39	0	8	22	5	3	.....	Hon. C. B. Hege.
Mauch Chunk	Carbon	634	24	68.5	0.0	98	17	38	9†	44	1.84	− 2.30	.....	0	.....	25	2	3	w.	F. C. Wintermute.
Mifflintown	Juniata	445	9	69.2	.....	95	16	32	10	45	2.15	.....	0.71	0	9	22	3	5	w.	Wellington Smith.
Milford	Pike	455	10	66.0	+ 1.2	94	16	32	10	48	1.44	− 2.60	0.77	0	6	20	10	0	nw.	Mrs. Alla Doughty.
Montrose	Susquehanna	1,658	9	63.4	.....	87	16	30	9	35	2.05	.....	0.65	0	5	22	5	3	w.	Silas Jagger.
New Germantown	Perry	873	9	67.8	.....	94	15	34	9†	49	0.83	.....	0.75	0	3	23	0	7	w.	Ed. C. Johnston.

TABLE 1.—*Climatological data for June, 1913. District No. 1*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Pennsylvania—Contd.																				
Philadelphia	Philadelphia	117	42	72.5	+ 1.3	96	16	47*	9	29	2.15	− 1.15	1.64	0	8	10	12	8	s.	U. S. Weather Bureau.
Reading	Berks	280	40	71.2	+ 1.4	95	16	43	9	34	1.21	− 2.42	0.84	0	7	15	7	8	n.	U. S. Weather Bureau.
Scranton	Lackawanna	805	13	67.5	+ 0.3	91	16	39	9	37	1.34	− 2.23	0.63	0	8	18	9	3	nw.	U. S. Weather Bureau.
Selinsgrove	Snyder	455	25	68.6	− 1.0	95	16	33	10	46	4.07	+ 0.07	1.30	0	9	0	27	3	sw.	J. M. Boyer, C. E.
Spring Mount	Montgomery	155	24	.....	.....	.....	.....	.....	.....	.....	1.01	.....	0.57	0	5	.....	.....	.....	.....	James F. Smith.
State College	Center	1,191	25	68.0	+ 1.1	90	16†	34	10	37	2.83	− 1.35	0.73	0	7	.....	.....	.....	w.	Prof. Wm. Frear.
Stroudsburg	Monroe	425	3	68.4	.....	91	16	35	10	47	0.95	.....	0.53	0	8	20	9	1	sw.	J. Clyde LeBar.
Towanda	Bradford	754	18	65.0	− 1.2	91	16	32	9	40	1.96	− 1.90	1.03	0	10	24	3	3	nw.	Hiram E. Bull, C. E.
West Chester	Chester	455	59	71.3	+ 1.8	95	16	41	9	31	2.03	− 2.13	1.25	0	7	17	9	4	nw.	J. C. Green, D. D. S.
Williamsport	Lycoming	530	23	69.6	+ 0.6	95	16	37	9†	37	1.18	− 2.54	0.57	0	7	25	1	4	nw.	Henry H. Guise.
New Jersey.																				
Asbury Park	Monmouth	22	25	67.8	− 0.4	96	16	46	10	33	2.06	− 1.74	1.31	0	4	15	8	7	s.	H. E. Denegar.
Atlantic City	Atlantic	16	40	67.0	+ 0.2	92	17	46	10	32	2.41	− 0.62	1.15	0	8	12	9	9	sw.	U. S. Weather Bureau.
Bayonne	Hudson	50	23	69.9	+ 0.2	94	16	46	10	34	2.40	− 1.24	1.29	0	5	19	10	1	s.	Erskine R. Eadie.
Belvidere	Warren	289	23	70.0	+ 1.0	96	16	39	10	47	1.23	− 3.17	0.78	0	3	29	1	0	.....	Samuel J. Hixson.
Bergen Point	Hudson	37	16	69.4	+ 0.6	92	16	48	9	32	2.16	− 1.79	1.18	0	4	8	22	0	se.	Wm. H. Mitchell, M. D.
Boonton	Morris	230	23	.....	.....	.....	.....	.....	.....	.....	1.33	− 2.41	0.78	0	.....	.....	.....	.....	.....	Joseph White.
Bridgeton	Cumberland	30	32	71.5	− 1.9	97	16	43	9	39	1.73	− 2.04	0.64	0	6	17	5	8	sw.	Henry A. Jorden.
Burlington	Burlington	12	27	70.4	.....	96	16	46	9†	36	1.87	− 2.05	0.90	0	4	23	6	1	nw.	D. S. B. McCoy.
Cape May City	Cape May	17	35	68.0	+ 0.3	92	17	46	9	31	2.36	− 0.68	0.83	0	10	11	16	3	s.	U. S. Weather Bureau.
Charlotteburg	Passaic	719	21	66.2	+ 0.7	92	16	31	9	43	1.93	− 2.33	1.66	0	3	21	9	0	nw.	George S. Briggs.
Chatham	Morris	234	11	.....	.....	.....	.....	.....	.....	.....	1.60	− 2.06	1.20	0	3	.....	.....	.....	.....	M. A. Butler.
Clayton	Gloucester	126	20	70.0	− 1.4	95	16	40	11	40	2.56	− 0.84	0.93	0	6	25	4	1	w.	William T. Farley.
Culvers Lake	Sussex	848	12	.....	.....	.....	.....	33	9	....	1.59	− 2.25	1.07	0	5	24	5	1	e.	Brice E. Riker.
Dover	Morris	600	29	66.6a	− 0.6	92a	16	37a	9	39a	1.42	− 2.70	0.95	0	5	11	14	5	.....	William C. Harris.
Elizabeth	Union	45	34	69.4	− 1.8	94	16	38	10	39	2.23	− 1.37	1.04	0	4	20	9	1	se.	L. B. Bonnett.
Flemington	Hunterdon	140	25	70.4	+ 1.3	95	16	42	9	42	1.22	− 3.15	0.75	0	4	25	3	2	sw.	Hiram E. Deats.
Haddonfield	Camden	75	26	70.0	− 0.7	93	16	44	9	35	2.03	− 1.58	1.27	0	7	11	12	7	sw.	Charles F. Richardson.
Highstown	Mercer	119	21	67.2	− 2.2	95	16	35	9	44	1.30	− 2.71	0.70	0	4	18	9	3	w.	Frank V. Jeminson.
Highwood	Bergen	90	26	67.3	− 1.0	93	16	37	10	38	1.33	− 2.45	0.69	0	3	18	3	9	s.	Charles J. Bates.
Imlaystown	Monmouth	107	25	69.0	− 1.8	96	16	43	10	42	1.19	− 2.79	0.49	0	5	19	6	5	s.	H. E. Bullock.
Indian Mills	Burlington	76	24	70.3	− 0.7	96	16	43	9	44	1.03	− 2.76	0.76	0	5	17	12	1	se.	James Armstrong.
Jersey City	Hudson	10	15	71.6	+ 1.6	95	16	47	10	34	1.59	− 1.71	0.78	0	4	19	6	5	s.	Samuel K. Pearson, jr.
Lakewood	Ocean	54	11	68.2f	− 0.1	95f	16	43f	10	40f	.....	.....	.....	0	.....	.....	.....	.....	.....	Ralph Robertson.
Layton	Sussex	550	14	66.1	− 0.2	92	16	31	10	47	1.12	− 2.30	0.54	0	4	28	1	1	w.	Warren C. Hursh.
Little Falls	Passaic	175	11	.....	.....	.....	.....	.....	.....	.....	1.17	− 3.11	0.67	0	4	.....	.....	.....	.....	A. Sweetman.
Long Branch	Monmouth	30	6	66.2	.....	95	16	47	11	39	1.32	.....	0.63	0	4	21	7	2	s.	Wm. D. Martin, jr.
Mahwah	Bergen	312	11	.....	.....	.....	.....	.....	.....	.....	1.43	− 3.03	1.35	0	2	.....	.....	.....	.....	Charles L. Barker.
Moorestown	Burlington	75	51	70.3	+ 0.1	95	16	42	9	36	2.33	− 1.47	0.80	0	6	23	6	1	sw.	George L. Gillingham.
Newark	Essex	159	70	71.7	+ 2.0	95	16	47	9	35	3.29	− 0.34	2.25	0	3	23	5	2	sw.	Prof. William Weiner.
New Brunswick	Middlesex	100	60	68.9	− 0.7	95	16	41	10	37	1.35	− 2.42	1.08	0	3	18	9	3	sw.	Earle C. Stillwell.
Newton	Sussex	678	34	69.2	+ 1.5	94	16	38	9	39	0.83	− 2.96	0.63	0	4	17	6	7	w.	F. Vernon Losee.
Northfield	Atlantic	25	6	.....	.....	.....	.....	.....	.....	.....	2.46	.....	0.92	0	8	.....	.....	.....	.....	William L. Flick.
Paterson	Passaic	80	42	70.2	+ 0.1	95	16	45	10	36	2.04	− 2.28	1.66	0	3	11	19	0	s.	Heber A. Probert.
Phillipsburg	Warren	363	23	70.5	+ 0.8	95	16	41	10	39	1.44	− 2.71	0.56	0	5	20	10	0	n.	D. W. Smith.
Plainfield	Union	100	27	69.6	+ 0.3	95	16	43	10	41	1.32	− 2.81	0.92	0	4	17	10	3	sw.	John Neagle.
Pleasantville	Atlantic	26	15	.....	.....	.....	.....	.....	.....	.....	3.76	− 0.01	1.23	0	6	23	4	3	.....	Lincoln Van Gilder.
Pompton Plains	Morris	195	11	.....	.....	.....	.....	.....	.....	.....	2.14	− 2.02	1.83	0	5	.....	.....	.....	.....	M. S. Taylor.
Somerville	Somerset	60	30	69.4	+ 0.2	95	16	43	9†	41	1.41	− 2.74	0.86	0	4	24	4	2	sw.	A. A. Macdonald.
South Orange	Essex	200	43	69.0	+ 0.2	92	16	46	9	33	2.13	− 1.43	1.20	0	4	24	2	4	w.	Dr. Wm. J. Chandler.
Sussex	Sussex	442	23	68.6a	+ 1.0	92a	16	35a	10	45	1.48	− 2.25	0.84	0	3	21	7	2	sw.	George Dymock.
Trenton	Mercer	63	42	70.6	− 0.7	94	16	44	9	34	0.68	− 3.20	0.48	0	5	14	10	6	n.	U. S. Weather Bureau.
Tuckerton	Ocean	23	20	68.7	− 0.3	97	16	39	10	38	3.40	− 0.37	0.95	0	7	19	10	1	se.	Frank R. Austin.
Vineland	Cumberland	118	44	70.6	− 1.0	98	16	43	9†	41	1.93	− 1.65	0.77	0	8	17	13	0	nw.	Alfred Chalmers.
Woodbine	Cape May	43	22	68.9	− 0.1	95	16	40	10	37	1.80	− 1.70	0.70	0	8	28	1	1	.....	Prof. R. D. Maltby.
West Virginia.																				
Bayard	Grant	2,500	11	65.4	+ 2.0	91	30	29	10	43	4.05	− 1.11	1.22	0	10	20	7	3	w.	Solomon Clark.
Burlington	Mineral	875	19	68.7	+ 0.6	93	16†	34	10	40	3.97	− 0.21	1.40	0	7	15	13	2	w.	J. W. Vandiver.
Franklin	Pendleton	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Fred Calhoun.
Lost City	Hardy	.....	7	65.6	.....	86	21	36	10	30	5.88	.....	2.00	0	11	12	17	1	se.	B. D. Hinegardner.
Martinsburg	Berkeley	435	21	73.0	+ 2.4	99	16	41	10†	39	2.10	− 2.18	0.47	0	9	19	6	5	s.	G. W. Van Metre, C. E.
Moorefield	Hardy	900	18	70.9	+ 1.9	94	16	38	10	31	3.11	− 1.30	0.75	0	11	13	14	3	sw.	John C. Fisher.
Romney	Hampshire	824	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. F. Staub.
Upper Tract	Pendleton	1,230	15	67.8	− 0.2	92	16†	32	10	44	3.02	− 1.63	1.10	0	6	5	22	3	w.	J. M. Mallow.
Maryland.																				
Annapolis	Anne Arundel	45	41	73.7	− 0.2	99	16	49	11	38	2.48	− 2.04	1.00	0	6	20	1	9	s.	U. S. Naval Academy.
Baltimore	Baltimore	115	43	73.7	+ 0.7	97	16	46	9	26	1.47	− 2.37	0.77	0	6	12	12	6	s.	U. S. Weather Bureau.
Cambridge	Dorchester	25	15	72.8	− 0.6	100	16	43	11	38	1.86	− 2.72	0.55	0	7	15	13	2	ne.	T. E. Keenan.
Cheltenham	Prince George	230	13	71.2	+ 0.9	94	16†	41	10†	33	1.81	− 3.02	0.70	0	6	21	3	6	nw.	George Hartnell.
Chestertown	Kent	80	27	72.0	+ 1.0	96	16	45	9†	40	2.63	− 1.35	1.02	0	4	18	11	1	s.	M. P. Thomas.
Chewsville	Washington	530	16	69.9	+ 0.6	96	16	34	10	41	1.64	− 3.10	0.83	0	9	15	14	1	nw.	D. Paul Oswald.
Clear Spring	do	650	15	69.4	+ 1.2	93	16	40	10	31	2.47	− 1.93	0.70	0	8	17	11	2	e.	W. W. Frantz.
Coleman	Kent	80	13	72.4	+ 1.2	97	16	47	10	33	1.33	− 2.06	0.55	0	5	20	6	4	sw.	J. S. Harris.
College Park	Prince George	170	22	71.7	+ 0.9	100	16	38	11†	47	1.92	− 2.55	0.73	0	8	10	14	6	n.	Prof. H. J. Patterson.
Cumberland	Allegany	623	39	72.6	.....	98	17†	39	10	36	3.16	− 0.49	0.99	0	11	20	6	4	w.	F. E. Harrington.
Darlington	Harford	300	22	70.9	+ 0.6	97	16	42	9†	37	2.59	− 1.05	1.08	0	6	18	10	2	sw.	Prof. A. F. Galbreath.
Denton	Caroline	42	18	71.2	− 0.2	96	16	42	9	38	5.06	+ 0.83	2.55	0	7	20	6	4	sw.	H. B. Mason.
Easton	Talbot	35	22	70.4	− 0.6	92	16	45	9†	32	3.19	− 0.81	1.20	0	7	19	5	6	sw.	Henry Shreve.
Emmitsburg	Frederick	720	41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	James J. White.
Fallston	Harford	450	43	70.1	+ 0.4	93	16	42	9	29	1.82	− 2.25	0.62	0	6	2	27	1	ne.	J. H. Curtiss.
Frederick	Frederick	275	38	72.6	+ 0.9	99	16	38	10	42	0.88	− 3.50	0.25	0	7	20	6	4	ne.	Chas. S. Bireley.
Frostburg	Allegany	1,929	6	69.2	.....	92	16	37	10	38	3.35	.....	1.32	0	10	9	20	1	se.	R. A. Walter.
Great Falls	Montgomery	200	23	71.6	− 0.5	98	16	38	10	37	1.82	− 1.55	0.96	0	6	15	4	11	ne.	Chas. E. Sullivan.
Green Spring Furnace	Washington	450	21	72.1	+ 1.0	98	16	39	10	42	1.77	− 2.24	0.40	0	8	21	6	3	nw.	E. G. Kinsell.
Keedysville	do	400	9	71.5	.....	98	16	36	10	44	1.66	.....	0.38	0	8	21	5	4	n.	J. A. Miller.
Lake Montebello	Baltimore	200	4	72.0	.....	97	16	45	9	34	1.15	.....	0.40	0	6	21	6	3	se.	Martin L. Dobler.
Laurel	Prince George	150	19	70.8	− 0.2	96	16	38	11	37	1.81	− 2.50	0.82	0	4	13	13	4	.....	Dr. T. M. Baldwin.

TABLE 1.—*Climatological data for June, 1913. District No. 1*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
***Maryland*—Continued.**																				
Leonardtown	St. Marys	100	3	72.8	.....	98	16†	43	11	41	1.74	.....	0.48	0	6	19	7	4	s.	Brother Fidelis.
Monrovia	Frederick	630	28	71.2	− 0.5	97	16	39	10	34	0.96	− 3.40	0.28	0	8	21	5	4	s.	J. H. Lawson.
Pocomoke City	Worcester	37	20	71.9	− 0.8	95	17	46	1†	31	3.21	− 0.22	1.27	0	5	21	9	0	s.	Hon. R. M. Stevenson.
Porto Bello	St. Marys	38	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Clara C. Hyatt.
Princess Anne	Somerset	17	20	70.0	− 0.3	93	17†	41	11	36	2.64	− 0.75	0.62	0	8	10	13	7	sw.	J. R. Stewart.
Rockville	Montgomery	421	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. G. E. Lewis.
Salisbury	Wiscomico	23	8	72.0	.....	98	17†	41	11	39	2.70	.....	1.43	0	8	17	12	1	sw.	W. E. Browning.
Solomons	Calvert	20	22	74.2	+ 1.0	96	16	51	9	30	1.00	− 2.46	0.40	0	7	4	10	16	ne.	Dr. W. H. Marsh.
State Sanatorium	Frederick	1,460	6	70.9	.....	92	16†	40	9	32	1.62	.....	0.60	.....	5	21	6	3	.....	Superintendent.
Sudlersville	Queen Anne	65	15	72.1	+ 1.2	96	16	42	11	38	3.34	− 0.66	1.05	0	7	19	8	3	n.	Henry L. Higman..
Takoma Park	Montgomery	320	15	70.8	+ 0.7	94	16	44	9	29	1.71	− 3.34	0.80	0	8	2	23	5	.....	L. M. Mooers.
Towson	Baltimore	465	5	71.8	.....	98	16	42	10	36	0.78	.....	0.41	0	6	21	5	4	se.	C. W. E. Treadwell.
Van Bibber	Harford	100	16	71.3[a]	+ 1.3	97	16	39	11	40[a]	2.29	− 1.65	0.72	0	6	20	6	4	.....	W. Benj. Ford.
Westernport	Allegany	1,000	19	70.7	+ 1.6	94	15†	36	10	42	2.93	− 0.99	0.90	0	10	.....	.....	.....	.....	Prof. O. H. Bruce.
Westminster	Carroll	860	20	72.0[d]	+ 2.9	96	16	38	10	37[d]	1.80	− 3.36	1.33	0	5	17[d]	7[d]	2[d]	w.	Prof. G. F. Morelock.
Woodstock	Baltimore	392	43	74.8	+ 3.9	96	16†	47	11	28	1.50	− 2.15	0.85	0	8	19	7	4	w.	Rev. J. F. Dawson., S. J.
Delaware.																				
Delaware City	New Castle	10	6	72.4	.....	96	16	46	11	32	1.27	− 2.99	0.63	0	3	25	4	1	sw.	H. Morton Price.
Dover	Kent	40	25	71.8	− 0.8	96	16	45	11	37	3.78	+ 0.42	1.03	0	9	14	11	5	e.	W. C. Josting.
Milford	....do	20	29	71.6	− 0.6	95	16†	44	11	36	3.04	− 0.62	0.65	0	8	17	10	3	e.	C. J. Holzmueller.
Millsboro	Sussex	20	21	70.0	− 1.0	95	16	43	11	33	2.59	− 1.05	1.21	0	6	24	2	4	ne.	Rev. L. W. Wells.
Seaford	....do	40	22	70.2	− 0.8	94	16†	43	11	36	2.32	− 1.60	0.84	0	7	24	4	2	sw.	E. B. Brown.
Wilmington	New Castle	86	2	74.0[e]	.....	98	16	49[e]	10†	34[e]	1.33	− 2.59	0.38	0	7	22[a]	7[a]	0	se.	Alex. J. Taylor.
District of Columbia.																				
Washington	Dist. of Columbia	.....	.....	72.8	+ 0.1	96	16	45	11	30	1.81	− 2.37	0.75	0	10	14	8	8	n.	U. S. Weather Bureau.
Virginia.																				
Culpeper	Culpeper	450	5	70.8	.....	93	27	41	11	29	3.21	.....	0.66	0	8	16	10	4	se.	Col. H. C. Burrows.
Dale Enterprise	Rockingham	1,350	34	70.0	− 0.5	97	16	35	10†	44	6.16	− 0.45	2.32	0	12	9	16	5	s.	Rev. L. J. Heatwole.
Eastville	Northampton	15	3	72.4	− 2.1	94	16[r]	49	10	34	5.46	+ 2.44	1.90	0	9	13	14	3	sw.	T. B. Robertson.
Fredericksburg	Spottsylvania	100	24	71.6	− 0.9	96	21	42	11	30	3.35	− 1.62	1.79	0	8	20	6	4	s.	S. G. Howison.
Lincoln	Loudoun	500	12	71.2	+ 0.9	96	16	39	9†	34	0.95	− 5.60	0.52	0	4	11	13	6	nw.	Dr. George Roberts.
Mount Weather	....do	1,726	9	67.7	+ 0.1	89	16	36	9	23	1.90	− 2.90	0.58	0	10	11	14	5	nw.	U. S. Weather Bureau.
Quantico	Prince William	16	16	71.3	− 0.3	94	16	42	10	37	2.20	.....	0.84	0	8	22	5	3	ne.	Richmond, Fredericksburg & Potomac Railroad.
Staunton	Augusta	1,380	21	71.2	+ 0.8	95	21	37	10	36	3.51	− 1.31	1.28	0	12	8	13	9	sw.	Ernest Nothnagel.
Swetnam	Fairfax	300	1	.....	.....	.....	.....	.....	.....	.....	2.14	.....	0.67	0	7	22	2	6	s.	Potomac Electric Power Co.
Warsaw	Richmond	160	21	72.2	− 0.8	98	21	38	9	34	3.30	− 0.87	1.30	0	5	12	15	3	e.	C. H. Constable.
Winchester	Frederick	717	2	72.9	.....	95	16	42	10†	31	1.82	.....	1.19	0	6	19	6	5	w.	Bentley Kern.
Woodstock	Shenandoah	927	17	70.8	+ 0.5	96	21	36	10	37	6.44	+ 1.58	2.23	0	11	15	12	3	w.	Mrs. A. G. Artz.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for June, 1913. District No. 1, North Atlantic States.*

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Maine.																																
Ashland	St. John																															
Bar Harbor	Coast		T.		T.												.10				T.				T.					T.	0.10
Cambridge	Kennebec				.12	.22			.15								T.	.32										.07	.08			0.96
Cornish	Saco					.05		.01		.05							.22					.30					T.				0.93
Danforth	Penobscot		.20														.32											.21				0.73
Eastport	Coast		.09		.04	.08		.01		.01			T.	.08			.14											.16			.05	0.71
Eustis	Kennebec		.04		.07	.05		.37		.10	T.			T.			.12	.14	.03		.01	.01			.03			.21	.24		.08	1.52
Fairfield	do	.03															.14									.07					.04	0.21
Farmington	do		.02		.06			T.		.04				T.			.10	.35	.05		.02							.15				0.79
Gardiner	do		.02					.04		.02					.03		.11	.18			.03	.11						.41	.15			1.10
Greenville	do		.36	.08	.03			.04						.04			.32	.04			T.				T.			.17			.74	1.82
Houlton	St. John	.01															.60												.20		.40	1.21
Howe Brook	Penobscot		.32	.20													.40						.25								.10	1.27
Lewiston	Androscoggin					.10		T.		T.							.13	.16			.02	.23					T.	.56				1.20
Madison	Kennebec			.13	.35												.30	.07			.04				.07		.04	.18			.22	1.40
Millinocket	Penobscot		.04	.04	.01		T.	T.		T.							.21					T.			T.	.10	.08				.56	1.04
North Bridgton	Saco				.32												.47	T.										.59			.02	1.40
Oquossoc	Androscoggin		.02		T.			.02		T.				T.	T.	.25		.45	T.	T.								.15	.10		T.	0.99
Orono	Penobscot		.13		.10	.19		.14		.03	.16							.33											.30			1.38
Patten	do		.64														1.00										T.	T.				1.64
Portland	Coast	.02	.01			.02		.02		T.							.09				T.				.04		T.	.39				0.59
Presque Isle	St. John																											.39				1.08
Rumford Falls	Androscoggin		.04	T.	.04					.03				T.			.56	.02														
The Forks	Kennebec																															
Van Buren	St. John		.39	.18	.27	T.		.24				.06		*	.12			.18			T.				.60			.26			.07	2.37
Winslow	Kennebec	.02					.15									.03	.42	.01									.07	.12			.10	0.92
New Hampshire.																																
Alstead Center	Connecticut		.03		.02			.04												T.	.11	.01	.02									
Benton	do	.08	.27			.18		.02		.10							.82	.30			.07											0.23
Bethlehem	do		.46		.26			.09		.09				T.			.32	.35			.03							.64				1.84
Brookline	Merrimack																T.			.25	.83						T.				2.24
Concord	do	T.						T.		T.							T.			.05	.02	.03				T.					1.08
Durham	do																					.20									0.10
Franklin	do		.02					.21		.03	.02						.01	.28			T.	.02					13				0.20
Grafton	do																														0.72
Hanover	Connecticut	.01	.07		.06	.03	T.	T.									.19	.33		.01	.01							.23				0.94
Keene	do				.02			.09									T.			.04	.14	.12										0.41
Nashua	Merrimack		T.		T.												T.			.14	*	.59							T.			0.73
Newton	do		T.							T.				T.			T.				.08	.18							.02			0.28
Plymouth	do		T.		T.	T.		T.		.06	T.						.20	.31			.09						T.	.33				0.99
Vermont.																																
Bloomfield	Connecticut		.08		.11			.59								.29	.09	.11									.47				.08	1.82
Cavendish	do		.04			.03		.17		T.							.23			T.	.05							T.				0.52
Chelsea	do		.12		.16					.08							.39	.55			.05							.45				1.80
Manchester	Hudson							T.									.06			*	.41	T.										0.47
Somerset	Connecticut							.51									.01			.09	.26	.04					T.					0.91
St. Johnsbury	do	.02	.23		.15		T.	.07						T.			.19	.26			T.							.48	T.			1.40
Vernon	do																			.28	.16											0.44
Woodstock	do															.34	.06			T.							.17					0.57
Massachusetts.																																
Amherst	Connecticut		.03		.08			.24									T.			.47	.06	.02										0.90
Ashland	Merrimack	.03		.01				1.20												.50	.22					.17		.01				2.14
Bakers Bridge	do							.49	.05												.25	.15					19					1.13
Bedford	do				T.			.59												T.	.27	.21					.22		T.			1.29
Blue Hill	Coast		.04		T.			1.68												.03	.49	.53	.15				28	T.	T.			3.20
Boston	do		T.					.34		T.										.08	.04	.07				.11			T.			0.64
Chestnut Hill	do	.04			T.			.38												.20	.06					.36			T.			1.04
Clinton	Merrimack							.53	T.												.47	.03										1.03
Concord	do																															
Fall River	Coast		.30		.11			.12												.12	.35	.05										1.05
Fitchburg	Merrimack							T.												.03	.27	.14										0.44
Framingham	do							.51													.46	.91				.14						2.02
Haverhill	do							T.						T.							.14	.76	T.									0.90
Hingham	Coast		.01		.07			1.12													.43	.36					32					2.31
Hyannis	do		.04		.08			.14													.19	.04					40					0.87
Jefferson	Merrimack							.79												.48	*	.53				.01		.01				1.27
Lake Cochituate	do							.31													.14	1.55				.47			.01			0.86
Lawrence	do		T.		T.			.01						T.			T.				.21	.28							T.			2.18
Leominster	do		.01					T.												.12	20	1.89										0.62
Lowell	do							.02									.01				.05	.09				.10						2.12
Middleboro	Coast		.43		.02			.48												T.	.62	.08					25					1.17
Nantucket	do		.07		.55			.02													.25	.05										1.59
New Bedford	do		.18						.15												.25	.05										0.63
Norfolk	do							.76												T.	.15	.43				T.	.07					1.41
Plymouth	do		.63		.17			.62													.62				23							2.27
Princeton	Merrimack							.33													.34											0.67
Provincetown	Coast		.28		.06			.65													.24	.06	.18									1.47
Rockport	do				.02			.15													10	1.75										2.02
Rutland	Connecticut																															
Somerset	Coast		.58		T.			.21												.40	.09											1.28
Spot Pond	do	.02		.01				1.10												.21	.18					.02		.01				1.55
Springfield	Connecticut	T.						.35												T.	.35	T.				T.		T.				0.70
Sterling	Merrimack							.26													*	.36										0.62
Taunton	Coast		.40		.04			.63												*	*	.46				.03			T.			1.56
Turners Falls	Connecticut				.08												.05			.05	.49										0.67
Westboro	Merrimack							1.20													.51	.16										1.87
Williamstown	Hudson		.10	.01				.08	T.											.22	.36	.10					T.					0.87
Winchendon	Connecticut																.02			.07	.30	.63										1.02
Worcester	Coast		T.		T.			1.10												.07	.35	.58							.04			2.14
Rhode																																
Block Island	Coast		.01		.09			.09												:01	.27	.26										0.73
Bristol	do		.19		.02			.09												*	.79											1.09
Greene	do		.43					.13													.81	.08										1.45

TABLE 2.—*Daily precipitation for June, 1913. District No. 1*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Rhode Island—Con.																																
Hope Valley	Coast		.56					.14												T.	.89	.14										1.73
Kingston	do		.35		.02			.13												T.	.82	.13										1.45
Narragansett Pier	do		.30					.10												.01	.60	.25							.01			1.27
Pawtucket	do		.31		.06			.61													.37	.14				.02			T.			1.51
Providence	do		.32					.39												.20	.26	.02					T.		T.			1.19
Wallum Lake	do																															
Connecticut.																																
Bridgeport	Coast		.15					.30													.40	.20						.39	.09			1.53
Canton	Connecticut		.05		T.			.18												T.	.37	T.						.05	.07			0.72
Colchester	Coast		.30					.13													.34	.39						.54				1.70
Cream Hill	Housatonic		.01					.92												T.	.47	.16						.04	.07			1.67
Danielson	Coast		.35		T.			.45												*	*	1.10						.12				2.02
Falls Village	Housatonic		T.					.84												.01	.20	.56						.05	.15			1.81
Hartford	Connecticut		.08		T.			1.54												.01	.25	.12				T.	T.	.05	.02			2.07
Hawleyville	Housatonic		.17					.54													.31	.31										1.33
Lake Konomoc	Coast								.35												.20	.35										0.90
New Haven	do		.32					.27												T.	.36	.07					T.		.07			1.09
New London	do		.35					.25												.03	.20	.21						T.				1.04
N. Grosvenor Dale	do		.07					1.04												.04	.31	.88						.45				2.79
Norwalk	do				.01			.29													.05	.30							.10			0.75
Southington	do		.05					.70													.30	.65						.45	T.			2.15
South Manchester	Connecticut							1.56													*	.39										1.95
Storrs	Coast		.05		.50			1.05													.55	.12						.05				2.32
Torrington	Housatonic																															
Voluntown	Coast		.30		.02			.11														.96										1.39
Wallingford	do	.38						.39												.20	.40							.07				1.44
Waterbury	Housatonic		.17					.33													.68	1.36							.77			3.31
West Simsbury	Connecticut																															
New York.																																
Addison	Susquehanna	T.	.04					.26									.08			T.	.32	.11				2.61		1.59	.22			5.23
Albany	Hudson	.05	.02					.14	T.								T.			.14	.19	.02				1.04	T.		.11			1.71
Alfred	Susquehanna	.11	.08					.55									.25			.07	.70	.22				T.		.18				2.16
Amsterdam	Mohawk		.25														.25	T.		.05	.33						T.	T.	.23			1.11
Athens	Hudson		.04	.54				T.									.02			T.	.44	.06				.28			.18			1.56
Bainbridge	Susquehanna																															
Ballston Lake	Hudson		.21					.08	T.	T.							.09	T.		.04	.38		T.					T.	.11			0.91
Bedford	Coast		.30					.32													.12	.50				.01						1.25
Beerston	Delaware		.06		1.34			.01												.03	.29	.49						.01	.12			2.35
Binghamton	Susquehanna	T.	.02	.16				.04								.01				.01	.32	.06						.18	.01			0.81
Bouckville	do		.60		.05			.44							.06		.08			.05	.56	.15				.01	.21	.05	.03			2.29
Carmel	Hudson		.21					.13													.08	.12							.34			0.88
Chatham	do		.12		.28			.07									.02			.01	.38	.12				T.	.12	T.	.03			1.13
Cooperstown	Susquehanna	.34					.13	.49								.02				.60	.35					.24	.08	.30				2.55
Corinth ‖	Hudson		.12													.47					.48							.03				1.10
Cortland	Susquehanna		.16					.75									.01			.04	.11	.24				.64	.01	.25				2.21
Cutchogue	Coast		T.					.33													.17	.20							.05			0.75
De Ruyter	Susquehanna	T.	.67		.04			.55							.13	T.	.05			.05	.13	.60				.20	.16	.18				2.76
Elmira	do	T.						.16								T.				.15	.84					.54		1.27				2.96
Glens Falls	Hudson		.33		.02			T.									.32			.24	.22	.02						.04				1.19
Gloversville	Mohawk		.40					.07									.56	.02		T.	.46						T.	.08	.04			1.63
Greene	Susquehanna																															
Greenfield Center	Hudson	.15															.05			.20	.46								.25			1.11
Greenwich	do		.23																.08	.14	.43											0.88
Griffin Corners	Delaware																															
Hancock ‖	do							.82									.05					.55							.05			1.47
Haskinville	Susquehanna	*	.43						.70							T.					.70	.31				.93		.90				3.97
Homer	do																															
Hoosick Falls ‖	Hudson		.04						.20													.73	.24									1.21
Indian Lake	do				.10					.10										.12	.06					.10						0.48
Jeffersonville	Delaware							.74									T.			T.	.31							.13		.02		1.20
Liberty	do			.50																T.	.25	.67					T.	T.	.05			1.47
Little Falls	Mohawk		.55					.27									.14			.07	.40						.10					1.53
Mechanicsville	Hudson	.14														.15				.34	.04							.04				0.71
Mohonk Lake	do							.55													1.30											1.85
Morehouseville	Mohawk																1.40				.78						.38	.14				2.70
Morrisville	Susquehanna																															
Mount Hope	Coast		.14					.18									T.				.28	.77										1.37
Newark Valley	Susquehanna	.06						.03													.45	.04				.04		.49				1.14
New Berlin ‖	do		.23					.13	.41								.01				.08	.42										1.28
New Lisbon	do							.40									.01				.32	.46					.06		.80			2.05
New York City	Coast		.01		T.			.77													.61	T.				T.	T.		.04			1.43
North Creek	Hudson															.60				.25							.09					0.94
Northville	do																															
Norwich	Susquehanna																															
Oneonta	do							.11													.29	.17							.54			1.11
Oxford	do		T.	.10																T.	.47	.54				T.		.10				1.21
Oyster Bay	Coast																															
Port Jervis	Delaware		.10					.21									T.				.91	.05						.30	T.			1.57
Roslyn	Coast		.05					.70													.01	.46							.23			1.45
Salisbury	Mohawk		.33					.26												.08	.44					.36						1.47
Scarsdale	Coast							.60													.50									T.		1.10
Setauket	do		.05					.23													.28	.07						.16	.11			0.90
Sharon Springs	Mohawk		.25					.25									.10			.10	.60	.25				.30	.10		.10			2.05
Sherburne ‖	Susquehanna		.47					.13	.35							T.				T.	.18	.43					.06		.10			1.72
Southampton	Coast		.01		.45			.20													.18	.18	T.						.01			1.03
South Edmeston	Susquehanna	T.	.56					.33							T.	T.	T.			T.	.28	.38				T.	.09		.47			2.11
Spier Falls	Hudson	.09					T.	T.								.35				.40	T.					T.						0.84
Trenton Falls ‖	Mohawk		.48		T.			.14	T.								.32				.23	.19					.05	.84	.09			2.34
Tribeshill	do							.30													1.20							.10	.10			1.70
Utica ‖	do		.50					.10	.18								.05				.13	.30					.38	.16	.12			1.92
Wading River	Coast							.57												T.	.07	.22										0.86
Wappingers Falls	Hudson							.75												.05	.42					.04	.04		.42			1.72
Warwick	do		.10					.28													1.62	.10						.12				2.22
Waverly	Susquehanna		.01					T.									.06			T.	.70	.10				2.62		.88	T.			4.37
West Berne	Mohawk							.70									T.			T.	.97	.09				.59			.54			2.89
West Point	Hudson		.43					.26													.52							.13	T.			1.34
Windham	Mohawk		.15		.05			.15									T.			T.	.37	.16				1.03			.41			2.32

TABLE 2.—*Daily precipitation for June, 1913. District No. 1*—Continued.

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Pennsylvania.																																
Allentown ‖	Lehigh							.16											.16		.69	T.						.99				2.00
Altoona	Susquehanna	.18	.01					.01									.23				.12	.22	.05			.02	1.08	.04				1.96
Ansonia ‖	do								.03								.12	.26			.68	1.35						.03				2.47
Austin	do	.40						.30									.15			.05	.42	.40				.10	.03	.10				1.95
Bethlehem	Lehigh							.10												.26	.94	.04						.47				1.81
Bloserville	Susquehanna	T.	.05	T.				.04												.10	.30	.04		.04		.35	.04	.08	T.			1.04
Browers Lock	Schuylkill							.04													.15		1.38	.10	.05				1.11	.10		2.93
Catawissa	Susquehanna	.01	.02	.17				.07									.28			.22	.46	.14				T.	.06	.31	.01			1.75
Center Hall	do								.58								.15				.23	.40				1.00	.85	.05				3.26
Coatesville	Coast							.11												T.	1.36				.24		.09	.32				2.12
Doylestown	Schuylkill							.45														.68						.82				1.95
Drifton	Susquehanna				T.			.35									T.			.05	.50	1.17					.10	.20				2.37
Emporium	do	.08						T.									.74			.21	.57	.32				.70	.12	.20				2.94
Ephrata	do							.13									T.				.88	T.			.26		.01	.32				1.60
Everett	Juniata	.03						.25														.20		.45		.33	.95					2.21
Forks of Neshaminy	Delaware							.34													.64							.90				1.88
George School	do				.10																.09	.27		.11					.72			1.29
Gettysburg	Potomac							.01													.05		.16	.04	.05	.70	.38					1.39
Girardsville	Susquehanna		.06	.02				.14								T.	.31			T.	1.09	.08						.30				2.00
Gordon	do		T.		.29			.23									.16			.06	.33	.82	.04						.11			2.04
Hamburg	Schuylkill																			.37	.87	.27										1.51
Hanover	Susquehanna							.01														.12	.05		.19	.24	.06					0.67
Harrisburg	do	.01	.01	T.				.03									.02			.02	.37	.01		.02	.02	.11	.38	.08	T.			1.07
Huntingdon	Huntingdon		.05					.12									.26				.35	.37				.72	.47	.64	T.			3.18
Hyndman	Potomac		T.					.28													.19	.25	.05	.09	.03	.02	.31	.03	T.			1.25
Kennett Square	Coast							.15								T.					.12	.61	.04		.44			.19				1.55
Lancaster	Susquehanna							.20													.34	1.20			.52			.09				2.35
Lansdale	Schuylkill																					.57						.96	.21			1.74
Lawrenceville	Susquehanna							T.									T.			T.	1.00	.20				T.		.80				2.00
Lebanon	do						.05										.02				.45	T.	.04	T.	.08		T.		.02			0.66
Le Roy	do	.02						.11									.02			.01	.72	.11	.01				T.	.16				1.16
Lewisburg	do							.42							.20	.04				.27	1.24		.40			.07	.33					2.97
Lloyd	do							.27								T.				T.	.76	1.97						T.				3.00
Lock Haven	do		.20					.47							.25		.12			T.	1.90	.42				.08	.30	.09				3.83
Marion	Potomac			.04				.12									.06					.39	.25	.14		.07	.28					1.35
Mauch Chunk	Lehigh				.02			.07												*	1.50						.02	.23				1.84
Mifflintown	Juniata							.28							.04		.07			.01	.45	.33				.71	.20	.06				2.15
Milford	Delaware		.10					.43												T.	.07	.77						.06	.01			1.44
Montrose	Susquehanna		.10					.60													.50	.20				T.		.65				2.05
Mountain House	Juniata							.15													.18	.07	.31			.82						1.53
Mount Gretna	Susquehanna		T.		T.			.02				T.	T.				T.			T.	.44	.05		.01	.09	T.	.12	.07	.01			0.81
New Germantown	do																										.04	.75			.04	0.83
Ottsville	Delaware		.02					.39													1.29				.03				.29			2.02
Philadelphia	do				T.			.05									.15				1.64	.01		.01	.13	T.		.08	.08			2.15
Point Pleasant	do							.20													.66	.18						.35				1.39
Pottsville	Schuylkill			.86				.06													.76	.07						.03				1.78
Reading	do		T.					.08							.05		.01			T.	.84	.04		T.	.16		T.	.03	T.			1.21
Renovo ‖	Susquehanna		.10														.47				.79	.34	.07				.12	.18	T.			2.07
Scranton	do	.04	.01	T.				.37									.15			.06	.45	.19						.07	T.			1.34
Seisholtsville	Schuylkill							.06													.94							.18				1.18
Selinsgrove	Susquehanna				1.30			.13							T.		.66	.10		.15	.95	.28				.34	.16					4.07
Shawmont	Schuylkill				.05			.04										.05			.10	.94			.10			.05	.25			1.58
Shippensburg ‖	Susquehanna			.13				.12										.07			.08		.06	.03	.05	.26	.20					1.00
Smiths Corners	Schuylkill							.18													.51	.10						.16				0.95
Spring Mount	do							.13													.57		.12		.06			.13				1.01
State College	Susquehanna	T.						.60									.11			T.	.58	.08				.57	.73	.16	T.			2.83
Stroudsburg	Delaware		.08		.09			.05									.01				.05	.53						.12	.02			0.95
Sunbury	Susquehanna		T.		.22			.34							T.		T.	.05	T.	T.	.90	.15				.43	.39					2.48
Towanda	do	T.	.08					.10									.05			.02	1.03	.09				.06	.02	.49	.02			1.96
Welkert	do	.02						.19							.30		.21				.44	.14				.12	.38	.34				2.04
West Chester	Coast							.14									.02				.06	1.21			.16			.45	.01			2.03
Wilkes-Barre ‖	Susquehanna		.03		.17				.42									.03			.46	1.10	.03						.54			2.78
Williamsport ‖	do		.04						.10									.02			.57	.36						.03	.06			1.78
New Jersey.																																
Asbury Park	Coast				T.			.44	.15												.38	.93		T.	.02				.14			2.06
Atlantic City	do				.02			1.15													.66	.24	T.	.04	.13			.06	.11			2.41
Bayonne	do		.01					1.02									.02					1.29							.06			2.40
Belvidere	Delaware							.33													.12	.78										1.23
Bergen Point	Coast		.05		T.			.91									T.				T.	1.18							.02			2.16
Boonton	Passaic		.01						.54								T.				.01	.77					T.					1.33
Bridgeton	Cumberland				T.			.22									.05				.18	.46	.27	.25	.30			T.	T.			1.73
Burlington	Delaware					T.			T.									T.			.12	.63	T.		.22				.90			1.87
Cape May City	Coast				.02			.39	.21								.02	T.			.83	.10	.05	.24	.45			.05				2.36
Charlotteburg	Passaic		.10					.17													1.66							T.	T.			1.93
Chatham	do		.05						.35													1.20	T.									1.60
Clayton	Coast																					.17	T.		.65			.50	.11			2.56
Culvers Lake	Delaware		.20					.30									.20				.93	.12						.02				1.59
Dover	Passaic		.05					.34												T.	.12	.95										1.42
Elizabeth	Coast	.02			T.	T.		1.01									.04				.95	.04										2.23
Flemington	do		.02		T.			.12									T.					1.04							.16			1.22
Haddonfield	Delaware				T.			.10									T.				.33	.75			T.				T.			2.03
Hammonton	Coast	T.			.04			.30						.04		.41	T.	.05			.03	1.27	.04		.18	T.		T.	.36			2.06
Highstown	do							.20													.03					.46			.78			1.30
Highwood	do							.64									T.				.30	.70				.10						1.33
Imlaystown	Delaware							.45													.22	.47					T.	T.	T.			1.19
Indian Mills	Coast							.12									T.				.18	.49	.02		.05	T.		T.				1.03
Jersey City	do		.01		T.			.78														.76		.05	.07				.03			1.59
Lakewood	do																				.76	T.						T.	.04			
Layton	Delaware		.11					.34									.04				.35	.71			.15		.02					1.12
Little Falls	Passaic								.25									T.		T.	.54	.13										1.17
Long Branch	Coast		T.			T.		.63														.65	.02			.25						1.32
Mahwah	Passaic								.08												.05	.55		T.		.01		.08				1.43
Moorestown	Delaware							.25														1.35										2.33
Newark	Passaic								.96									.20			.05	.80			.23				.80			3.29
New Brunswick	Coast																				2.25								.08			1.35
Newton	Delaware		.07		.01			.26													1.08											0.83
Northfield	Coast							.12													.01	.63						T.	T.			2.46
Paterson	Passaic		T.					.20	.71												.08	.92	.08	.04	.14				.20			2.04
Phillipsburg	Delaware		.03					.35													T.	1.66				T.		.03	T.			1.44
								.27													.48	.56						.10	T.			

TABLE 2.—*Daily precipitation for June, 1913. District No. 1*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
New Jersey—Contd.																																
Plainfield	Coast		.01		T.			.38													.92	.01					T.				1.32
Pleasantville	do							(*)	.98												.04	1.10		.05	.36			1.23			3.76
Pompton Plains	Passaic		.04						.18													1.81	.02					.09			2.14
Somerville	Coast	.03						.29													.23	.86					T.				1.41
South Orange	do				T.			.73									.10				1.20							.10			2.13
Sussex	Hudson		.16					.48													.84										1.48
Trenton	Delaware				.02			.11									T.				.48	.01	T.	T.	.06		T.	T.			0.68
Tuckerton	Coast				.18			.95										.10				.79	.12	.37	.89							3.40
Vineland	do				T.			.25									.13				.04	.35	.03	.06	.77			.30	T.			1.93
Woodbine	do								.24									.03				.70	.40	.25	.15	.01			.02			1.80
West Virginia.																																
Bayard	Potomac	.06			T.			.31	.32												.10	.50	.49	.85	.11	T.	1.22	.09			4.05
Burlington	do	T.			T.			.38													T.	.34	.20	.65	.10	1.30	1.00				3.97
Franklin	do																															
Harpers Ferry ‖	do		T.															.31				.18	.22	.20	.15		.08				1.14
Lost City	do			2.60	.20			.10	.10							T.		T.				.15	.57	.49	.18	.11	1.72		.26			5.88
Martinsburg	do			.20				.10									T.			T.	.20	.23	.20	.47		.25	.35		.10			2.10
Moorefield	do			.25	T.		T.	.15	.33												T.	.11	.51	.49	.15	.11	.75	.19		.07		3.11
Romney ‖	do																															
Upper Tract	do		T.	T.	.60		T.	T.	.22													T.	.50	T.	.30	1.10	.30		T.			3.02
Maryland.																																
Annapolis	Coast											.37										.03	1.00	.40	.46			.22			2.48
Baltimore	do							T.													.01	.65	.13	.17	.46	T.	.05	T.			1.47
Cambridge	do				15			.55	.45													.08		.09	.15			.39			1.86
Cheltenham	do				37			.35															.03	.70	.28	.08					1.81
Chestertown	do								T.													T.	.48	.65	1.02	T.		T.	.48			2.63
Chewsville	Potomac			.03				.10									.02	T.			.22	.83	.04	.14		.09	.17		T.			1.64
Clear Spring	do		.02		T.				.08									.39				.13	.70	T.	.14		.69	.32				2.47
Coleman	do							.12														.55		.12	.33				.21			1.33
College Park	do		.03						.02													.07	.10	.33	.73		.62	.02				1.92
Cumberland	do		.05				T.	.15	.20												.10	.28	.43	.04	.25	.24	.99	.43				3.16
Darlington	Coast							T.													.16	1.03	T.	.08	1.08			.06	.18			2.59
Denton	do				.12			.21	.30														.21	1.08	.59				2.55			5.06
Easton	do				.20	.01															.27	.21		.53	1.20			.77				3.19
Emmitsburg	Potomac																															
Fallston	Coast							T.												T.	T.	.53	.02	.11	.09	T.	T.	.62	.45	T.		1.82
Frederick	Potomac		T.					T.										.13			T.	.25	.16	.07	.01	.04	.22	T.	T.			0.88
Frostburg	do	.03						.26													.19	1.32	.18	.21	.31	.01	.79	.05				3.33
Great Falls	do								.17									.96				.17	.14	.16	.22							1.82
Green Sp'g Furnace	do							.08										.40			.10	.30	.13	.14		.30	.32					1.77
Keedysville	do			T.				.05									.31				T.	.35	.14	.24	.02	.38	.17					1.66
Lake Montebello	Coast							.21													T.	*	.40	.17	.34			.03	T.			1.15
Laurel	do																					.28	.21	.50	.82							1.81
Leonardtown	do							.48																.18	.46	.25	.35		.02			1.74
Monrovia	Potomac		.02					T.										.06				.28	.25	.22	.02	.01	.10					0.96
Pocomoke City	Coast				.13			1.08	1.27													.60		.13								3.21
Porto Bello	do																															
Princess Anne	do		T.		.09			.70	.62													.45		.17	.07			.13	.41			2.64
Rockville	Potomac				.13			1.43	.58																							
Salisbury	Coast				.13			1.43	.58													.06	.05	.18	.05			.22			2.70
Solomons	do				.08			.09	.26													.01	T.	.08	.40	T.	T.		.08			1.00
State Sanatorium	Potomac		T.	T.													.50				.30	.60	.10				.12			T.	T.	1.62
Sudlerville	Coast				.02				.06													.68	.06	.68	1.05		T.		.79			3.34
Takoma Park	do		.05						T.									T.				.15	.20	.15	.80	.05	.25	.06		T.		1.71
Towson	do							T.														.41	.11	.08	.14	.02	T.			.02		0.78
Van Bibber	do							.02														.52		.18	.41			.72	.44			2.29
Westernport	Potomac	.06						.26												.15	.40	.02	.12	.60	.24		.90	.18				2.93
Westminster	Coast							T.													1.33	.14	.10		.11	.12						1.80
Woodstock	do		T.						.05													.85	.41	.01	.03	.01	.13		.01			1.50
Delaware.																																
Delaware City	Coast				T.			T.	T.												.34	.30	T.	T.				T.	.63	T.		1.27
Dover	do				.03			.28													.75	.96	.05	.25	1.03		T.	.35	.08			3.78
Milford	do				.05			.04	.65													.51	.53	.56	.50				.20			3.04
Millsboro	do							.58	1.21									.10				.35	.18	.17								2.59
Seaford	do							.10	.84						*							.40	.04	.28	.46				.20			2.32
Wilmington	do							.05									.06			.14	.38	.12						.33	.25			1.33
District of Columbia.																																
Washington	Coast	.01		T.	.01			.03	T.								.75					.11	.08	.29	.04	.46	.03					1.81
Virginia.																																
Culpeper	Rappahannock	.48		.51				.66	.45												.63		.21	.39	.48							3.21
Dale Enterprise	Shenandoah			1.06	.03			.50	T												.30	.06	.20	2.32	.25	.46	.83	.14	.01			6.16
Eastville	Coast			T.	.21			.70	1.25			.06	.03	.62									T.	.60	.09	1.90						5.46
Fredericksburg	Rappahannock	.24			1.79			.20	.10								T.						T.	.10	.26	.52	.14					3.35
Lincoln	Potomac								.03													.20	.20	.52								0.95
Mount Weather	do	.06		T.	T.			.02	T.												.16	.09	.23	.57	.23	.02	.19	T.	.33			1.90
Quantico	do				.47			.58	.02														.63	.21	.24	.03	.02					2.20
Staunton	Shenandoah	.02		†	.53			†	.51												.01	T.	1.28	.01	.67	.19		.01				3.51
Swetnam	Potomac		.43		.12			.28										.67				.17	.20	.27								2.14
Warsaw	Rappahannock				.05			.50	.75									T.							1.30	.70	T.					3.30
Winchester	Potomac			.06																		.23	.26	1.19	.05		.03					1.82
Woodstock	Shenandoah			.20	.26				.13													.15	.54	.76	2.23	.62	.19	.03	1.33			6.44

* Not measured.
† Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for June, 1913. District No. 1, North Atlantic States.*

Date.	Maine.												Concord, N. H.		Massachusetts.								Providence, R. I.		Connecticut.			
	Eastport.		Greenville.		Orono.		Portland.		Presque Isle.		Rumford Falls.				Amherst.		Boston.		Middleboro.		Nantucket.				Cream Hill.		Hartford.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	59	43	.....	.....	68	35	67	46	.....	.....	76	43	81	42	82	44	80	57	77	42	70	52	75	51	77	54	79	52
2....	66	50	.....	.....	68	53	71	54	.....	.....	66	48	71	47	76	52	77	63	75	59	68	53	75	58	72	53	75	58
3....	66	47	.....	.....	74	43	70	52	.....	.....	76	41	79	39	78	44	78	57	74	46	68	52	74	51	73	50	76	52
4....	64	45	.....	.....	74	51	63	59	.....	.....	69	51	73	54	80	56	73	56	71	58	62	51	72	56	77	49	80	62
5....	62	47	.....	.....	73	49	69	51	.....	.....	75	50	77	47	79	48	71	56	73	46	63	47	75	52	72	51	78	63
6....	63	45	.....	.....	74	43	69	53	.....	.....	78	48	78	49	77	53	78	55	71	49	59	47	72	50	68	53	74	52
7....	68	47	.....	.....	74	54	82	55	.....	.....	74	54	82	54	85	54	86	57	80	58	63	55	83	60	82	50	85	56
8....	60	46	.....	.....	74	43	62	48	.....	.....	60	45	61	45	65	48	61	50	66	48	58	47	66	52	61	42	65	50
9....	59	44	.....	.....	61	41	61	46	.....	.....	57	38	61	37	62	42	61	48	63	46	57	48	61	47	58	36	61	46
10....	69	44	.....	.....	71	34	67	46	.....	.....	70	38	71	37	72	37	72	47	70	37	63	52	69	46	66	38	71	42
11....	80	50	.....	.....	81	47	83	55	.....	.....	80	48	81	42	79	44	82	55	79	49	66	52	79	52	76	44	78	49
12....	61	46	.....	.....	82	51	67	52	.....	.....	67	54	72	46	82	48	74	53	75	44	71	49	77	50	83	47	83	55
13....	57	44	.....	.....	70	43	59	49	.....	.....	74	52	83	42	81	46	77	51	70	42	62	48	65	48	78	60	76	50
14....	67	47	.....	.....	72	49	78	51	.....	.....	72	51	81	54	87	56	85	60	85	54	78	54	85	55	82	54	86	57
15....	66	49	.....	.....	74	38	66	51	.....	.....	76	42	80	44	83	49	75	59	79	48	70	55	73	56	75	53	79	57
16....	63	48	.....	.....	78	53	88	56	.....	.....	85	56	90	59	92	62	91	61	88	57	75	58	89	61	87	57	90	63
17....	72	57	.....	.....	82	58	72	57	.....	.....	66	53	78	55	84	58	83	62	84	63	76	60	82	61	82	64	83	62
18....	70	49	.....	.....	74	45	70	52	.....	.....	72	50	74	47	78	46	70	56	76	45	66	51	73	55	75	46	75	55
19....	68	46	.....	.....	77	42	70	50	.....	.....	74	44	75	42	74	46	72	57	76	43	67	51	75	56	69	52	74	54
20....	59	46	.....	.....	77	62	60	55	.....	.....	60	55	68	54	68	55	68	57	68	55	66	55	71	57	71	53	72	60
21....	65	48	.....	.....	77	52	69	53	.....	.....	78	54	81	59	84	65	72	58	74	59	65	55	75	62	80	62	85	66
22....	74	48	.....	.....	76	41	77	55	.....	.....	72	48	79	54	82	59	82	62	80	55	75	57	80	61	77	54	81	62
23....	62	45	.....	.....	76	36	67	54	.....	.....	79	45	83	48	84	51	82	64	81	51	74	57	80	59	82	58	82	58
24....	60	45	.....	.....	82	42	80	53	.....	.....	82	49	86	52	86	56	86	64	81	49	74	55	81	59	83	57	83	59
25....	59	46	.....	.....	82	53	68	55	.....	.....	71	59	64	53	74	60	70	54	72	56	69	52	68	54	77	62	82	59
26....	56	46	.....	.....	76	52	58	55	.....	.....	62	54	61	53	74	56	66	56	66	53	65	52	65	54	74	59	71	57
27....	68	48	.....	.....	85	54	91	58	.....	.....	89	58	91	61	91	64	90	64	83	60	72	59	87	62	86	57	87	64
28....	67	59	.....	.....	87	54	82	63	.....	.....	78	57	83	58	87	61	87	67	85	66	77	61	86	66	78	55	86	65
29....	70	50	.....	.....	79	41	77	59	.....	.....	80	48	83	48	86	48	84	63	80	45	73	57	83	62	80	56	85	56
30....	78	47	.....	.....	82	41	77	56	.....	.....	83	45	89	48	90	50	87	61	79	54	70	57	83	59	85	60	86	60
Mns..	65.3	47.4	.....	.....	75.9	46.7	71.3	53.1	.....	.....	73.4	49.3	77.2	49.0	80.1	51.9	77.3	57.7	76.0	51.2	68.1	53.3	76.0	55.7	76.2	52.9	78.9	56.4

Date.	New Haven Conn.		New York.												Pennsylvania.												Atlantic City, N. J.	
			Addison.		Albany.		Binghamton.		Indian Lake.		Little Falls.		New York.		Everett.		Harrisburg.		Philadelphia.		Scranton.		State College.		Wellsboro.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	78	55	80	44	81	52	80	45	75	36	80	46	79	60	83	48	82	56	83	65	81	49	80	51	.....	.....	71	62
2....	76	60	76	51	73	55	69	50	72	45	69	52	77	64	76	61	76	60	78	64	70	53	76	55	.....	.....	77	62
3....	74	55	85	43	79	47	81	44	76	32	78	45	73	59	84	51	82	56	84	60	82	48	82	50	.....	.....	70	60
4....	79	58	76	52	73	58	69	50	72	49	69	55	78	65	79	55	80	63	84	68	74	55	77	56	.....	.....	72	64
5....	77	54	77	41	78	51	71	42	75	34	70	44	76	57	75	46	76	59	77	61	74	46	76	47	.....	.....	67	59
6....	70	53	89	44	80	54	82	48	79	34	80	48	70	58	83	47	82	56	79	58	83	52	81	56	.....	.....	67	55
7....	83	58	76	58	79	53	75	49	78	50	75	52	80	58	81	60	79	57	86	59	82	51	78	60	.....	.....	73	62
8....	67	49	59	37	62	47	50	38	57	35	55	38	66	49	70	39	64	48	70	51	58	43	66	42	.....	.....	64	53
9....	64	46	61	31	62	40	55	31	55	27	60	33	61	47	61	47	61	44	65	47	57	39	59	35	.....	.....	59	46
10....	72	44	75	30	72	44	65	35	68	26	68	36	70	49	67	32	71	48	70	51	68	12	70	34	.....	.....	63	46
11....	79	49	80	37	80	47	74	40	75	45	74	47	76	52	74	35	78	47	79	54	76	44	78	41	.....	.....	68	52
12....	82	55	84	38	81	60	78	45	81	48	74	48	83	57	81	46	84	58	83	60	82	54	82	50	.....	.....	74	54
13....	68	52	87	42	83	56	80	47	80	37	81	48	70	56	81	49	86	57	79	56	85	54	82	51	.....	.....	63	57
14....	88	56	88	52	87	61	76	54	79	45	79	60	89	59	86	55	91	65	92	63	84	60	86	61	.....	.....	89	57
15....	74	60	92	51	84	52	86	46	83	33	87	50	79	64	91	56	91	68	90	70	90	53	90	58	.....	.....	74	65
16....	92	62	95	61	92	65	90	66	86	60	86	63	91	65	92	62	96	71	96	69	91	69	90	62	.....	.....	90	66
17....	84	66	86	56	83	59	78	57	81	52	77	59	87	69	86	65	89	72	92	76	82	63	85	68	.....	.....	92	69
18....	72	56	78	44	75	52	74	44	72	32	67	43	73	60	83	54	80	64	77	60	76	54	80	53	.....	.....	72	60
19....	70	54	80	42	72	51	76	47	72	33	71	47	69	59	84	52	81	58	80	58	81	54	83	58	.....	.....	68	59
20....	77	61	88	51	68	59	75	63	70	52	65	55	84	61	91	63	91	66	84	64	83	64	88	63	.....	.....	74	63
21....	85	65	82	63	82	65	75	61	75	50	70	59	81	65	90	60	83	63	84	68	77	66	76	64	.....	.....	89	65
22....	82	63	80	42	81	60	75	53	72	43	75	46	80	65	83	58	81	65	80	68	77	60	79	56	.....	.....	74	66
23....	79	60	86	47	83	55	82	46	83	38	80	50	77	64	66	62	73	62	75	67	84	54	78	53	.....	.....	68	64
24....	78	60	90	51	87	63	86	54	85	41	84	56	78	64	81	62	83	65	78	65	85	57	86	60	.....	.....	70	64
25....	77	60	92	56	87	65	85	60	87	44	86	58	84	60	80	65	80	65	85	68	87	62	78	64	.....	.....	73	64
26....	67	59	84	63	78	64	79	66	85	60	79	60	73	59	76	65	78	68	81	65	78	66	80	65	.....	.....	71	65
27....	85	64	88	64	87	68	85	68	87	64	82	65	84	64	88	64	92	68	88	68	85	70	89	62	.....	.....	76	69
28....	88	66	82	67	82	63	79	59	80	59	87	65	84	71	87	60	86	72	85	74	83	66	82	72	.....	.....	85	66
29....	82	60	87	47	83	55	84	49	83	36	84	50	82	66	86	57	88	65	85	68	83	55	83	63	.....	.....	74	64
30....	84	60	96	53	93	56	90	53	86	38	90	56	83	65	88	68	88	65	86	66	89	58	88	62	.....	.....	75	63
Mns..	77.8	57.3	82.6	48.6	79.6	55.9	76.8	50.3	77.0	42.6	76.1	51.1	77.9	60.4	80.9	54.8	81.7	61.2	82.0	63.0	79.6	55.4	80.3	55.7	.....	.....	73.4	60.7

TABLE 3.—*Maximum and minimum temperatures at selected stations for June, 1913. District No. 1*—Continued.

Date.	New Jersey.								Martinsburg, W. Va.§§		Maryland.								Millsboro, Del.		Washington, D. C.		Virginia.					
	Bridgeton.		Phillipsburg.		Sussex.		Trenton.				Baltimore.		Darlington.		Frederick.		Westernport.						Fredericksburg.		Staunton.§§		Woodstock.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	86	56	84	51	82	47	82	58	87	54	85	63	80	53	87	53	88	48	83	56	85	55	83	53	84	54	85	54
2....	79	65	79	51	77	60	79	60	84	64	79	67	81	62	80	65	82	59	79	62	81	62	81	63	82	62	81	60
3....	83	53	83	49	79	44	83	57	89	56	83	61	81	52	88	53	89	53	82	52	84	58	81	57	85	57	87	56
4....	84	67	84	63	84	62	83	64	85	62	82	70	84	65	87	66	83	58	81	67	84	66	83	64	82	62	84	64
5....	80	58	80	54	77	50	78	57	82	54	76	61	78	56	79	53	78	44	77	60	78	56	74	59	78	54	76	50
6....	81	53	83	51	80	49	78	54	87	53	83	61	78	52	86	50	92	50	81	51	83	53	82	53	83	54	84	54
7....	90	64	84	60	83	61	84	57	82	61	86	65	85	55	82	64	82	63	86	60	86	69	85	68	84	66	81	64
8....	79	56	69	50	67	48	68	48	71	55	69	52	76	56	75	54	71	53	72	56	70	55	70	56	64	53	74	52
9....	66	43	67	42	64	37	64	44	71	44	65	46	75	42	65	43	67	43	63	50	64	45	64	46	63	43	63	42
10....	72	44	75	41	73	35	72	47	77	41	68	50	72	42	70	38	70	36	67	46	68	46	67	43	68	37	67	37
11....	81	46	82	44	.....	.....	78	49	80	41	77	52	79	42	81	39	78	38	73	43	74	45	72	42	68	38	73	40
12....	84	50	87	48	86	41	86	56	85	47	84	61	86	53	85	47	83	48	78	47	82	53	77	50	81	51	81	51
13....	83	54	87	51	84	49	79	54	88	54	83	59	85	52	88	51	86	49	74	51	86	56	82	52	85	47	85	48
14....	93	54	94	57	89	58	92	58	93	58	93	67	91	67	94	57	89	54	88	55	91	63	89	60	92	56	89	55
15....	92	66	92	58	87	52	89	64	96	64	89	73	91	66	96	62	94	54	82	67	92	70	88	65	91	55	82	57
16....	97	64	95	64	92	63	94	66	99	67	97	72	97	65	99	66	94	61	95	65	96	67	93	63	92	61	85	60
17....	95	68	90	68	88	69	90	71	93	70	93	76	90	69	92	70	91	69	92	68	87	68	91	67	91	65	88	66
18....	82	63	83	56	78	50	78	60	90	63	80	65	81	62	86	59	89	54	74	61	82	65	80	65	82	60	85	58
19....	83	52	84	51	79	48	79	53	87	63	82	63	78	52	85	56	90	55	78	53	82	60	82	55	85	58	88	58
20....	90	61	88	60	86	59	87	61	98	62	92	69	90	62	96	66	91	62	89	61	92	69	91	66	92	69	93	64
21....	90	68	83	66	84	64	81	66	95	68	90	66	87	65	93	68	92	62	90	67	94	70	96	69	95	73	96	65
22....	76	66	85	62	83	60	84	65	80	62	77	68	77	65	80	64	76	62	75	68	75	64	80	65	84	64	72	61
23....	73	63	82	56	85	53	75	65	67	63	70	66	72	63	73	64	68	61	69	65	70	67	77	68	78	65	69	64
24....	81	65	86	62	86	56	79	64	82	65	79	68	80	64	84	65	84	63	78	66	83	68	82	69	85	66	85	65
25....	85	66	89	63	89	61	86	66	83	67	81	68	81	63	85	67	86	66	81	64	81	68	83	67	87	65	87	67
26....	80	65	84	65	79	63	78	65	83	69	80	69	79	65	86	70	83	66	87	67	83	72	81	68	85	65	82	67
27....	89	65	89	68	87	67	85	65	93	66	91	72	88	67	96	68	93	66	86	67	94	70	90	69	92	66	93	67
28....	86	70	89	67	87	67	84	72	93	72	92	75	87	68	93	75	91	78	88	71	91	77	91	74	93	69	90	70
29....	88	56	90	54	84	49	88	63	92	65	84	70	87	60	90	66	88	64	81	63	88	72	85	72	83	69	84	65
30....	89	58	91	59	89	57	86	71	92	63	88	70	84	58	92	60	91	64	84	57	89	66	85	59	87	67	88	75
Mns..	83.9	59.1	84.6	56.4	82.3[a]	54.8[a]	81.6	59.7	.....	.....	82.6	64.8	82.7	59.1	85.8	59.3	84.6	56.8	80.4	59.5	83.2	62.5	82.2	60.9	83.4	59.0	83.2	58.5

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.

§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 2, SOUTH ATLANTIC AND EAST GULF STATES.

CHARLES F. VON HERRMANN, District Editor.

GENERAL SUMMARY.

The period of cold weather that prevailed throughout nearly the entire district from about the 7th to 13th was the most marked feature for June, 1913. At many stations in nearly every State in the district all previous records for low temperatures in June were broken. The lowest temperatures were 40° or below, except in Florida and Mississippi, where the lowest were 50° and 47° respectively. Frosts formed as far east as the tidewater section of Virginia on the 11th and 12th. After the warmth of the first few days of the month the cold weather was felt so much that fires were generally necessary in the Piedmont and more elevated districts even as far south as Atlanta. Daily mean temperatures were generally below normal from about the 6th to 14th, the departures exceeding 20° at numerous stations on the 10th and 11th, and the effect of this period of deficiency in temperature was so marked that, although temperatures remained much above normal during practically the entire latter half of the month, daily maximum temperatures in the south continuously exceeding 90°, the State averages were below the normal for every State in the district. The continuous heat during the latter half of the month was severely felt, the extremes ranging from 98° in Virginia to 107° in Alabama.

The precipitation was decidedly below normal in Florida and Mississippi, and slightly above normal in the Carolinas. Showers were general and well distributed from the 1st or 2d to the 12th, and scattered showers fell during the last decade. At a few stations the rainfall for the month exceeded 10 inches. Thunderstorms were unusually frequent during the month, and several destructive local storms were reported with considerable damage by wind, hail, or lightning.

The cool wave during early June accompanied an area of exceptionally high atmospheric pressure for a summer month that drifted slowly southward from the upper Lakes on the 8th to 14th. On the 9th and 10th the pressure was above 30.6 inches over northern Indiana and Ohio and the upper Lake region. The highest atmospheric pressure for the month in district No. 2 was 30.46 inches at Lynchburg, Va., on the 10th, and the lowest was 29.78 inches at Hatteras during the development of a small unimportant disturbance off the North Carolina coast.

TEMPERATURE.

As indicative of the wide extent and marked intensity of the cool wave of the 7th to 14th, the average temperature for each State in the district is below the normal, although the entire latter half of the month was much above normal in temperature as well as the first 5 or 6 days. The deficiency averaged 1.4° for South Carolina, Georgia, and Florida. The mean temperature for the district as a whole was 76°, and the deficiency 1° The highest monthly mean temperature was 82.4° at Selma, Ala., and the lowest 67.4° at Rock House, N. C.

The following particulars in regard to the cool wave of the second week of June are of interest.

Virginia.—Temperatures were usually low for southern Virginia in June on the 9th to 11th. Minimum temperatures were below 45° at a number of stations and light frosts formed as far east as tidewater on the 11th and 12th. At Richmond the temperature fell to 46°, the lowest June temperature in 15 years, and at Lynchburg to 43°, the lowest in 41 years.

North Carolina.—The period from the 8th to 13th was the coolest ever experienced in this section during the second week of June, the daily means averaging 15 to 20° below normal. Minimum temperatures of 50° or slightly lower were registered at many stations. The temperature did not rise above 62° at Charlotte from the 9th to 12th, and the maximum during the same time at Raleigh was 64°.

South Carolina.—Previous records of lowest temperatures for the State in June were broken by the minimum of 40° at Winthrop College on the 11th. The cold was so marked that the record of previous low temperatures was broken generally throughout the State.

Georgia.—On the 9th the minimum temperatures fell to 60° or below over the entire State and continued below 60° for about 6 days; minimum temperatures below 50° were registered at all except 5 stations. On the 12th previous records for low temperatures in June were broken in nearly all sections, the most interesting being the lowering of the Savannah record for 62 years from a previous minimum of 50° to 49° this month. At Atlanta the 9th, 10th, and 11th were the three consecutive coldest June days in 32 years.

Florida.—The lowest temperatures ever recorded in June occurred over portions of extreme northern Florida on the 12th, a minimum of 50° occurring at Jasper and Mount Pleasant.

Alabama.—Although lower night temperatures have been recorded previously during the first half of June, the average temperature for the cool spell of the 9th to 13th is unprecedented. At Montgomery the lowest daily mean temperature previously recorded was 62° on June 13, 1903, the lowest this month was 56° on the 10th. Even near the Gulf coast the records were broken.

The change to higher temperatures was very rapid. By the 15th the temperatures above 90° began to be registered, and the remainder of the month was warm in all sections. Temperatures remained continuously above 90° for many days in succession, and over 100° was registered at a number of stations, chiefly on the 16th to 18th and 21st to 23d. The maximum for the district was 107° at Bermuda, Ala., on the 18th. At Atlanta the highest temperatures were 90° or above from the 15th to the 29th, with the exception of one day with 89°. Similar conditions prevailed at many stations in the south.

PRECIPITATION.

The precipitation during June was very unevenly distributed. Although slightly above normal in Georgia and the Carolinas and at some stations the amounts for the month exceeded 10 inches, there were no extensive regions covered by excessive rainfall. The precipitation was much below normal in Florida and the Mississippi area and also considerably so in Alabama. Several places in Georgia, Alabama, and Mississippi received less than 1 inch. The average for the entire district was 4.36 inches, or 0.70 inch below the normal. The greatest amount received during June was 12.05 inches at Georgetown, S. C., and the least 0.32 inch at Bay Saint Louis, Miss There were on the average 10 rainy days.

Unsettled showery weather prevailed practically in all portions of the district for the first 10 or 12 days of the month. A brief period of fair weather followed, varying in length from a few days to a week, after which showers were again frequent but scattering. The number of thunderstorms was unusually large, being at some stations more than ever before recorded in one month; and as the heaviest rains were associated with local storms they occurred on various dates in each State, mostly about the 6th to 10th and on the 12th. The greatest 24-hour fall was 5.60 inches at Garniers, Fla., on the 9th, closely followed by 5.25 inches at St. George, Ga., on the 10th.

MISCELLANEOUS PHENOMENA.

Northeasterly winds prevailed in Virginia, southwest to west winds in the Carolinas and Georgia, and southerly winds in the States touching the Gulf. The wind movement was small, and average hourly velocity exceeding 10 miles only at the coast stations. Gales occurred as follows: Atlanta, 64 miles southwest on the 22d; Savannah, 42 miles southwest, 22d; Cape Henry, Va., 40 miles northeast on the 8th; and Pensacola, 40 miles northeast on the 28th.

The average number of clear days was 15, partly cloudy 9, and cloudy 6. The mean percentage of sunshine was low, the average for 18 stations being only 68 per cent. Meridian, Miss., and Anniston, Ala., reported the greatest amount of sunshine, 82 per cent, and Hatteras the least, 50 per cent.

Beautiful sunset colors were observed at Norfolk, Va., on the 30th.

Ten persons were killed by lightning during June in the district.

LOCAL STORMS.

Virginia.—Ruckersville. A severe hailstorm occurred on the 20th with much damage to crops. One man was killed by lightning.

South Carolina.—Mount Croghan, Chesterfield County. A severe storm of tornadic character occurred at 7 p. m. June 18, injuring one person and causing damage to property estimated at about $5,000. Columbia.—A thunderstorm during the afternoon of June 29 caused damage approximating $900. There was a brilliant display of lightning, and the flagstaff on the post office building was shattered, and a barn burned.

Georgia.—Severe local thunderstorms with high winds occurred on the afternoon of June 18 at Coolidge and Moultrie, during which houses were unroofed or blown down, and telephone and telegraph lines were prostrated. A similar storm occurred at Atlanta on June 22, during which some large plate-glass windows were blown in.

Florida.—Severe local storms occurred in Leon and Gadsden Counties on the afternoon of the 18th, causing damage to crops and other property aggregating $250,000.

RIVER CONDITIONS.

There were no unusual features pertaining to the rivers in the district during June. The stages averaged nearly normal at most places, the rivers as a rule being highest during the first half of the month and falling during the latter half. In the upper Pedee River in South Carolina, however, stages were highest during the last week. The Salkahatchie River was above flood stage at Broxton Bridge, S. C., from the 9th to the 15th, and the Santee at Rimini and Ferguson was slightly above flood stages about the 13th to the 15th. No other rivers in the district attained flood stages at any point.

SEVERE WIND AND HAIL STORMS IN FLORIDA.

By A. J. MITCHELL, Section Director, Jacksonville, Fla.

During the afternoon of June 18, 1913, between 4 and 6 p. m., a severe wind and hail storm accompanied by heavy rains occurred over considerable portions of Leon and Gadsden Counties, Fla., causing approximately $200,000 damage, mainly, to tobacco, and $50,000 damage to other property of various kinds. The distribution of pressure on June 18 was not favorable for the occurrence of tornadoes, and there is no distinct evidence that the storm was of that character.

The storm was first felt at Tallahassee at 4.30 p.m., lasting with maximum intensity until 4.52 p. m. The wind probably reached a velocity of from 60 to 70 miles an hour at Tallahassee, which seems to have been located somewhat to the east of the central path of the storm, as indicated by the shifting of the wind from northeast through east to southeast with diminishing force. Some observers assert that a roaring sound was heard and peculiar dark gyrating clouds were seen, followed by a red glow in the west.

It is evident that the storm was the result of marked convectional conditions that had persisted for several days, and on the day of its occurrence afternoon temperatures of from 100° to 102° were registered in the district. During the same afternoon thunderstorms prevailed over most of Leon and Gadsden Counties, moving in a general direction from southeast to northwest. The storm required about 2 hours to traverse the distance from Tallahassee to Quincy, a distance of about 20 miles.

The greatest damage occurred in the vicinity of Tallahassee and Quincy. At the former place large trees were blown down; tobacco barns were razed, and their contents practically ruined; and a considerable acreage of "shaded" tobacco was lost as a result of the wind and hail. The wind blew off the protecting latticework, exposing the plants to the cutting effect of the hail, which ranged in size from one-half to three-fourths inch in diameter or more, and practically destroyed the crop.

In the city of Tallahassee one building was blown down and another moved from its foundations. All telephone and telegraph companies suffered severe losses. Crops in the vicinity were seriously damaged, including both corn and cotton.

TABLE 1.—*Climatological data for June, 1913. District No. 2, South Atlantic and East Gulf States.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
Virginia.																			
Arvonia	Buckingham	350	9	72.0	− 1.1	95	21	43	11	30	6.07	+ 2.48	2.11	0	12	11	17	2	nw.	Rev. Plummer F. Jones.
Ashland	Hanover	221	22	72.4	− 0.8	95	21	44	10†	28	2.14	− 2.07	1.01	0	6	12	14	4	s.	E. L. Scott.
Buchanan	Botetourt	820	9	.....	.....	.....	.....	.....	.....	.....	2.75	− 1.56	1.44	0	9	.....	.....	.....	.....	D. D. Booze.
Callaville	Brunswick	250	19	73.4	+ 0.3	98	21†	45	10	36	3.44	− 0.69	1.21	0	7	20	8	2	e.	F. M. Gage.
Cape Henry	Princess Anne	20	39	72.1	− 0.8	96	21	57	9	27	5.17	+ 0.75	2.26	0	10	9	10	11	ne.	U. S. Weather Bureau.
Catawba	Roanoke	1,760	2	70.1	.....	89	20†	38	10	26	4.98	.....	1.10	0	11	16	13	1	w.	State Board of Health Sanitarium.
Charlottesville	Albemarle	800	24	72.4	+ 0.1	97	21	43	10	33	4.49	− 1.40	1.22	0	11	15	7	8	n.	Leander McCormick Obser'y.
Clarksville	Mecklenburg	286	19	.....	.....	.....	.....	.....	.....	.....	8.08	+ 3.81	1.96	0	12	.....	.....	.....	.....	J. A. Ligon.
Columbia	Fluvanna	246	15	69.1	− 3.7	91	16	42	10†	31	5.60	− 1.08	2.60	0	8	16	7	7	ne.	Chesapeake & Ohio R. R.
Danville	Pittsylvania	413	13	.....	.....	.....	.....	.....	.....	.....	4.20	+ 0.15	1.03	0	10	.....	.....	.....	.....	C. G. Watkins.
Diamond Springs	Princess Anne	25	3	73.1	.....	96	21	55	1	30	5.52	.....	3.08	0	10	22	4	4	.....	Virginia Truck Exp. Station.
Dry Bridge	Chesterfield	325	2	.....	.....	.....	.....	.....	.....	.....	2.50	.....	1.03	0	8	.....	.....	.....	.....	Dr. E. W. Magruder.
Hampton	Elizabeth City	5	30	74.4	+ 0.2	92	17†	56	9	27	3.23	− 0.54	2.20	0	6	25	3	2	e.	Normal and Agri. Institute.
Hot Springs	Bath	2,195	21	67.8	+ 1.2	88	21†	35	11	36	2.86	− 2.45	0.79	0	11	14	11	5	.....	H. M. Tait.
Ivor	Southampton	87	4	.....	.....	97	21	.....	.....	.....	3.42	.....	1.90	0	5	.....	.....	.....	.....	Norfolk & Western Ry. Exp. Farm.
Lassiter	Goochland	100	3	.....	.....	.....	.....	.....	.....	.....	3.85	.....	1.40	0	7	20	6	4	.....	T. J. Davis.
Lexington	Rockbridge	1,060	36	69.3	− 1.5	95	21	38	10	43	4.20	.....	1.40	0	10	23	3	4	.....	Virginia Military Institute.
Lynchburg	Campbell	685	42	73.3	− 0.2	97	21	43	11	34	2.88	− 1.01	1.59	0	12	6	18	6	n.	U. S. Weather Bureau.
Newport News	Warwick	55	10	74.6	.....	95	16†	55	11	25	3.23	.....	1.53	0	11	15	12	3	ne.	C. W. Ashby.
Norfolk	Norfolk	91	43	73.2	− 1.2	95	16	53	9	27	5.70	− 1.37	3.17	0	12	14	7	9	ne.	U. S. Weather Bureau.
Petersburg	Dinwiddie	60	26	75.2	+ 0.9	98	21	47	10	32	5.29	+ 0.82	1.80	0	12	18	2	10	.....	Walter Edward Harris.
Randolph	Charlotte	334	9	.....	.....	.....	.....	.....	.....	.....	5.10	.....	1.50	0	8	.....	.....	.....	.....	W. J. Abbitt.
Richmond	Henrico	144	34	73.8	+ 1.3	97	21	46	10	28	3.78	+ 0.26	1.72	0	9	12	11	7	ne.	U. S. Weather Bureau.
Roanoke	Roanoke	907	3	71.1	.....	94	21	36	11	35	5.00	.....	1.98	0	9	14	14	2	nw.	Capt. Reese F. Bell.
Rocky Mount	Franklin	1,150	19	73.0	+ 0.2	96	20†	39	11	34	2.78	− 2.20	0.97	0	7	.....	.....	.....	.....	G. W. B. Hale.
Ruckersville	Greene	625	2	71.5	.....	96	21†	40	11	37	6.41	.....	1.42	0	11	.....	.....	.....	.....	Dr. Jesse Ewell.
Runnymede (near)	Surry	15	25	72.6	− 1.2	98	21	48	10	32	4.92	+ 0.8	2.10	0	7	13	5	12	sw.	B. W. Jones.
Stuart	Patrick	1,188	1	68.5	.....	93	20†	31	11	38	4.01	.....	1.08	0	9	19	5	6	nw.	Miss Etta Rickman.
West Point	King William	15	1	74.2	.....	96	21	46	11	33	2.32	.....	0.80	0	8	20	3.	7	s.	C. L. Maskey.
Williamsburg	James City	70	22	73.7	+ 1.2	95	21†	48	10†	29	3.75	− 0.02	1.70	0	7	17	8	5	se.	Eastern State Hospital.
North Carolina.																				
Albemarle	Stanly	700	1	74.5	.....	97	21	46	12	39	6.96	.....	2.39	0	13	21	5	4	sw.	M. J. Harris.
Altapass (near)	McDowell	2,133	.....	.....	.....	.....	.....	.....	.....	.....	6.06	.....	1.29	0	10	.....	.....	.....	.....	R. F. Brewer.
Beaufort	Carteret	10	12	75.0	− 1.0	92	15†	53	10	26	3.94	− 0.80	1.40	0	14	23	1	6	sw.	Lewis Radcliffe.
Belhaven	Beaufort	4	4	77.6	.....	99	16	52	11	35	7.28	.....	1.58	0	12	14	9	7	s.	A. L. Bell.
Brewers	Wilkes	1,950	16	72.0	+ 0.5	95	17	38	10	38	4.79	− 2.51	1.09	0	14	7	19	4	w.	W. L. Brewer.
Caroleen	Rutherford	806	13	75.2	+ 0.2	97	17†	52	9†	39	5.29	− 1.60	1.05	0	11	10	16	4	sw.	S. B. Tanner.
Chalybeate Springs	Harnett	500	7	74.2	.....	98	21	49	11	39	8.15	.....	2.23	0	12	20	4	6	sw.	J. A. Smith.
Charlotte	Mecklenburg	773	37	74.9	− 0.5	95	28	47	11	29	4.21	− 0.25	0.91	0	16	8	15	7	ne.	U. S. Weather Bureau.
Chimney Rock	Rutherford	1,150	3	72.2	.....	94	17	49	12	40	6.50	.....	1.70	0	9	20	7	3	w.	J. M. Flack.
Durham (near)	Durham	406	4	.....	.....	.....	.....	.....	.....	.....	4.32	.....	1.85	0	10	.....	.....	.....	.....	J. C. Michie.
Eagletown	Northampton	66	8	73.6	.....	96	21	52	11	28	5.69	.....	2.16	0	6	17	10	3	sw.	J. T. Elliott.
Edenton	Chowan	30	19	77.2	+ 2.5	98	21†	50	11	30	4.85	+ 0.66	1.25	0	8	13	9	8	s.	E. R. Conger.
Elizabeth City	Pasquotank	8	1	72.4	.....	93	21	54	2†	29	3.65	.....	1.20	0	6	20	5	5	sw.	W. J. Simmons.
Elizabethtown	Bladen	60	2	.....	.....	.....	.....	.....	.....	.....	4.57	.....	0.94	0	10	.....	.....	.....	.....	H. H. Barnhill.
Elkin	Surry	874	.....	.....	.....	.....	.....	.....	.....	.....	2.88	.....	1.50	0	8	.....	.....	.....	.....	Cynthia L. Myers.
Enfield (near)	Halifax	99	2	.....	.....	.....	.....	.....	.....	.....	3.20	.....	1.08	0	11	.....	.....	.....	.....	T. S. Inborden.
Fayetteville	Cumberland	170	26	75.3	− 0.9	97	16†	50	12	33	9.39	+ 5.13	2.55	0	14	14	4	12	sw.	Frank Glover.
Globe (near)	Caldwell	1,800	1	.....	.....	.....	.....	.....	.....	.....	6.02	.....	2.10	0	12	.....	.....	.....	.....	Julius L. Gragg.
Goldsboro	Wayne	102	43	73.9	− 3.0	96	21	47	12	32	8.53	+ 3.27	3.29	0	13	15	10	5	sw.	Mrs. J. J. Robinson.
Gorge (near)	Caldwell	1,358	1	.....	.....	.....	.....	.....	.....	.....	4.45	.....	1.08	0	12	.....	.....	.....	.....	A. J. Bagley.
Graham	Alamance	656	11	.....	.....	.....	.....	.....	.....	.....	4.15	− 1.14	0.88	0	12	.....	.....	.....	.....	Dr. W. R. Goley.
Greensboro	Guilford	843	32	72.6	− 2.4	93	21	45	10	29	3.46	− 1.81	0.77	0	12	.....	.....	.....	ne.	A. H. Horry.
Greenville	Pitt	75	20	.....	.....	.....	.....	.....	.....	.....	5.89	+ 1.53	1.52	0	12	.....	.....	.....	.....	R. M. Hearne.
Hatteras	Dare	11	39	73.6	− 0.8	89	15	56	10	22	1.62	− 2.71	0.90	0	7	14	6	10	sw.	U. S. Weather Bureau.
Henderson	Vance	508	20	73.7[a]	− 0.8	96	21	46	10	29	3.86	− 0.50	1.27	0	13	16	9	5	ne.	Enoch Powell.
Hickory	Catawba	1,165	.....	74.6[a]	.....	99	28	45	10	37	2.81	.....	0.64	0	14	8	18	4	s.	Frank B. Gwin.
Kings Mountain	Cleveland	952	1	75.0	.....	95	16†	49	11	34	4.60	.....	1.02	0	15	14	13	3	sw.	G. T. King.
Kinston	Lenoir	46	15	75.7	− 0.7	99	16†	50	12	39	7.85	+ 3.65	1.90	0	11	16	6	8	sw.	H. C. V. Peebles.
Lenoir	Caldwell	1,186	40	72.6	+ 1.1	97	17†	42	10†	44	3.95	− 0.28	1.42	0	7	21	4	5	n.	Eugene C. Ivey.
Lincolnton	Lincoln	994	7	73.0	.....	97	21	47	13	40	4.49	.....	0.85	0	12	10	17	3	s.	S. P. Houser.
Louisburg	Franklin	375	22	75.0	0.0	97	21	51	10	36	5.12	+ 1.03	1.00	0	9	.....	.....	.....	.....	T. B. Wilder.
Lumberton	Robeson	102	30	75.2	− 2.0	98	22	49	12	37	7.53	+ 2.22	1.91	0	15	.....	.....	.....	sw.	B. M. Davis.
Manteo	Dare	12	8	73.6	.....	95	21	56	14	30	3.43	.....	1.45	0	11	15	7	8	ne.	U. S. Weather Bureau.
Marion	McDowell	1,425	21	72.0	− 0.3	93	17	44	10†	35	7.25	+ 1.18	1.10	0	16	13	15	2	w.	Sergt. Thomas McGuire.
Middletown	Hyde	4	2	.....	.....	.....	.....	.....	.....	.....	4.17	.....	1.90	0	9	.....	.....	.....	s.	W. P. Burrus.
Moncure	Chatham	145	19	73.0	− 2.3	97	16†	47	11	41	3.49	− 0.70	0.52	0	14	12	8	10	sw.	B. J. Utley.
Monroe	Union	586	19	74.5	− 0.1	96	21	45	12	38	4.47	− 0.64	1.30	0	10	19	6	5	sw.	T. A. Ashcraft.
Morganton	Burke	1,135	26	72.4	− 0.5	94	17†	45	11	41	3.74	− 1.60	1.24	0	13	17	9	4	ne.	J. B. P. Massey.
Mount Airy	Surry	1,048	25	73.2	+ 1.5	96	17†	39	11	41	2.69	− 2.16	0.80	0	12	19	5	6	ne.	Prof. A. H. Merritt.
Mount Holly	Gaston	616	16	.....	.....	.....	.....	.....	.....	.....	4.78	− 0.48	1.04	0	17	.....	.....	.....	.....	J. W. Holland.
Nashville	Nash	190	9	74.8	.....	98	21	50	12	34	5.87	.....	1.67	0	15	9	13	8	s.	J. B. Boddie.
Neuse	Wake	266	1	.....	.....	.....	.....	.....	.....	.....	5.25	.....	1.13	0	12	.....	.....	.....	.....	E. M. Allen.
Newbern	Craven	12	31	75.3	− 0.7	95	17†	50	12	35	6.97	+ 1.57	1.94	0	16	11	10	9	sw.	J. B. Hill.
North Wilkesboro (near)	Wilkes	1,700	1	.....	.....	.....	.....	.....	.....	.....	1.74	.....	0.80	0	5	.....	.....	.....	.....	Dr. Charles A. Willis.
Parkersburg	Sampson	121	1	77.4[e]	.....	99	16†	50	12	42	5.78	.....	.....	0	13	.....	.....	.....	sw.	E. J. Conway.
Pinehurst	Moore	650	9	75.0	.....	98	21	47	11	34	5.36	.....	1.50	0	14	16	8	6	w.	General Office.
Pittsboro	Chatham	480	20	73.8	− 0.6	95	25†	48	11	33	5.15	+ 0.99	1.80	0	13	.....	.....	.....	s.	Mrs. J. F. Alston.
Raleigh	Wake	390	42	74.8	− 0.3	95	17	51	12	27	5.13	+ 0.41	1.64	0	12	12	11	7	sw.	U. S. Weather Bureau.
Ramseur	Randolph	442	6	73.6	.....	97	21	47	13	41	3.62	.....	1.25	0	13	9	13	8	n.	A. H. York.
Randleman	do	810	8	.....	.....	.....	.....	.....	.....	.....	3.77	.....	0.81	0	8	.....	.....	.....	.....	L. D. Mendenhall.
Reidsville	Rockingham	828	14	73.8[a]	+ 1.5	97	16	44	10	35	4.30	− 1.52	0.74	0	14	12	11	7	sw.	E. M. Redd.
Rock House	Macon	3,100	21	67.4	− 1.1	85	17	41	11†	27	10.43	+ 2.38	2.57	0	13	10	15	5	se.	Barry C. Hawkins.
Rockingham	Richmond	210	18	74.8[b]	− 2.5	95	16	50	10†	36	8.34	+ 2.61	1.70	0	14	.....	.....	.....	.....	H. S. Ledbetter.
Rocky Mount	Nash	105	2	.....	.....	.....	.....	.....	.....	.....	3.97	.....	0.96	0	8	.....	.....	.....	.....	G. P. Womble.
Salisbury	Rowan	760	29	74.8	− 0.9	98	28	44	10	38	5.38	+ 0.81	1.72	0	8	18	0	12	w.	Miss Thelma Wilkinson.
Scotland Neck	Halifax	80	9	71.4	.....	93	21	50	10†	30	3.72	.....	1.65	0	8	6	10	14	s.	J. Y. Savage.
Settle	Iredell	700	17	72.2	− 1.4	96	21	44	10	37	4.55	− 0.39	1.28	0	12	10	15	5	sw.	C. H. Smith.
Sloan	Duplin	50	20	73.8[a]	− 1.8	96	17	50	10†	36	5.50	+ 0.63	1.24	0	13	14	4	12	s.	D. M. Sholar.
Smithfield	Johnston	151	23	75.6	− 0.8	98	17	51	12	36	8.21	+ 3.65	2.31	0	14	18	2	10	s.	Edwin S. Sanders.
Southern Pines	Moore	519	23	.....	.....	98	17	.....	.....	.....	6.25	+ 1.19	1.35	0	.....	.....	.....	.....	.....	Mrs. P. H. Beck.

TABLE 1.—*Climatological data for June, 1913. District No. 2*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
North Carolina—Con.																				
Southport	Brunswick	18	58	73.9	− 3.7	93	17	51[d]	10†	26[d]	6.35	+ 2.01	2.30	0	12	13	12	5	sw.	Mrs. C. E. Taylor.
Statesville	Iredell	950	25	73.3	− 0.2	95	17†	45	10†	37	2.54	− 1.80	0.71	0	10	13	10	7	sw.	D. Matt Thompson.
Tarboro	Edgecombe	50	28	75.8[a]	− 0.6	98	17†	51	12	41	4.13	+ 0.03	1.24	0	11	....	....	....	.....	E. V. Zoeller.
Tryon (near)	Polk	1,300	1	.....	.....	.....	.....	.....	.....	.....	1.90	.....	0.65	0	11	....	....	....	.....	W. T. Lindsey.
Weldon	Halifax	81	41	73.2	− 2.4	95	21†	50	10	30	2.61	− 1.49	1.30	0	11	8	15	7	s.	H. S. S. Cooper.
Willard	Pender	51	5	74.6	.....	96	16	50	10†	37	5.80	.....	1.48	0	9	20	4	6	s.	J. H. Jefferies.
Wilmington	New Hanover	52	42	74.4	− 1.1	96	17	51	10	29	6.06	+ 0.44	2.11	0	13	6	17	7	sw.	U. S. Weather Bureau.
Winston-Salem	Forsyth	1,000	18	.....	.....	.....	.....	.....	.....	.....	2.90	− 2.12	1.90	0	5	....	....	....	.....	Rev. H. E. Ronthaler.
South Carolina.																				
Aiken	Aiken	565	18	76.3	− 2.4	98	22	44	12	36	7.92	+ 3.77	2.25	0	8	18	6	6	s.	C. E. Carman.
Allendale	Barnwell	186	24	77.8[b]	− 2.4	100	17†	.....	....	35	5.30	0	0.90	0	13	14	6	10	.....	E. C. Cavan.
Anderson	Anderson	764	11	76.8	+ 0.8	99	17	49	11†	49	3.33	− 2.35	1.13	0	10	17	1	12	w.	H. H. Russell.
Batesburg	Lexington	656	24	75.4	− 2.6	97	22	46	11†	31	5.71	+ 0.74	2.53	0	12	18	1	11	n.	E. J. Hite.
Beaufort	Beaufort	20	26	74.8[b]	− 5.0	95	17	50	12	30	1.96	− 3.08	0.52	0	5	....	....	....	.....	Miss Lillian H. Rice.
Blackville	Barnwell	296	23	78.0	− 1.7	103	17	46	12	40	4.11	− 1.68	1.02	0	16	18	1	11	sw.	Mrs. D. B. Sanders.
Blairs	Fairfield	293	7	.....	.....	.....	.....	.....	.....	.....	3.38	.....	0.80	0	10	21	0	9	s.	J. N. Owens.
Bowman	Orangeburg	160	11	76.4	− 1.6	100	17	46	12	38	3.23	− 2.00	0.81	0	8	19	7	4	sw.	B. O. Evans.
Broxton	Hampton	.....	2	.....	.....	.....	.....	.....	.....	.....	6.61	.....	0.90	0	12	17	5	8	.....	Thomas D. Williams.
Calhoun Falls	Abbeville	508	19	.....	.....	.....	.....	.....	.....	.....	2.59	− 2.24	1.02	0	8	14	11	5	nw.	L. M. Parker.
Camden	Kershaw	222	46	77.3	.....	98	17†	51	12	40	5.72	+ 1.43	1.99	0	13	16	5	9	sw.	W. C. Brown.
Catawba	York	562	7	.....	.....	.....	.....	.....	.....	.....	7.30	.....	1.40	0	11	21	1	8	s.	James C. Faris.
Chappells	Newberry	402	7	.....	.....	.....	.....	.....	.....	.....	5.06	.....	1.83	0	10	20	0	10	sw.	J. J. Murran.
Charleston	Charleston	48	42	76.2	− 2.3	95	17	49	12	27	2.88	− 2.51	0.77	0	10	13	11	6	s.	U. S. Weather Bureau.
Cheraw	Chesterfield	144	24	75.2	− 2.2	96	16†	49	12	34	5.30	− 0.12	1.81	0	17	14	6	10	w.	J. H. Powe.
Clemson College	Oconee	850	21	74.6	− 1.4	92	17	52	11†	34	6.47	+ 2.13	1.86	0	8	19	10	1	w.	Prof. John N. Hook.
Columbia	Richland	351	26	76.4	− 1.8	98	17	47	12	32	3.54	− 0.64	0.76	0	13	11	12	7	sw.	U. S. Weather Bureau.
Conway	Horry	25	20	77.2[a]	+ 1.0	101	16†	50	10	41	7.47	+ 2.47	1.80	0	12	16	0	14	s.	Paul Quattlebaum.
Darlington	Darlington	175	17	75.5	.....	98	16	47	12	40	5.66	.....	1.25	0	15	18	6	6	.....	D. C. McCall.
Dillon	Marion	100	8	75.1	− 2.3	98	23	48	12	34	6.58	+ 1.06	1.68	0	15	....	....	....	.....	A. E. Rowell.
Edisto	Bamberg	127	25	.....	.....	.....	.....	.....	.....	.....	4.47	− 1.25	0.80	0	13	16	6	8	sw.	Nathan Jenkins.
Edgefield	Edgefield	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.87	.....	.....	.....	.....	....	....	....	.....	T. L. Timmerman.
Effingham	Florence	106	20	.....	.....	.....	.....	.....	.....	.....	9.32	+ 3.07	1.60	0	12	16	1	13	w.	H. B. McCall.
Ferguson	Berkeley	51	4	79.9	+ 3.1	98	17	50	10	22	7.60	+ 1.91	2.00	0	9	17	1	12	.....	Joseph Simons.
Florence	Florence	136	24	75.8	− 2.8	99	17	48	12	37	6.90	− 1.06	1.25	0	15	14	5	11	s.	H. K. Gilbert.
Gaston Shoals	Cherokee	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.04	.....	1.22	0	14	22	3	5	ne.	Harry A. Parshall.
Georgetown	Georgetown	12	19	76.8	− 1.8	94	16†	51	10	28	12.05	+ 6.57	2.10	0	13	9	15	6	.....	A. P. Hazard.
Greenville	Greenville	989	20	74.8	+ 1.6	97	17	50	11†	36	4.63	− 0.75	1.63	0	13	18	4	8	sw.	Spartan Goodlette.
Greenwood	Greenwood	671	24	76.1	− 1.8	99	28	47	12	33	5.61	+ 0.98	1.30	0	13	22	0	8	w.	M. M. Calhoun.
Heath Springs	Lancaster	568	11	75.0	.....	97	15†	45	12	35	5.45	.....	1.36	0	11	11	11	8	w.	J. Marvin Bowers.
Kingstree	Williamsburg	57	24	76.0	− 2.1	98	17	49	12	38	10.98	+ 5.65	3.45	0	12	15	4	11	n.	A. O. Matthews.
Liberty	Pickens	900	18	76.6	+ 0.2	98	21	50	11	36	6.35	+ 1.53	1.60	0	11	12	14	4	s.	John T. Boggs.
Little Mountain	Newberry	711	19	76.4	− 1.6	99	17	45	12	45	4.03	− 0.49	1.30	0	10	23	3	4	n.	J. M. Sease, M. D.
Meriwether	Edgefield	.....	3	76.8	.....	100	17	44	12	41	3.45	.....	0.98	0	8	11	14	5	.....	William S. Middleton.
Monetta	Aiken	.....	1	76.6	.....	98	17†	46	12	30	4.65	.....	1.11	0	16	17	7	6	s.	Joseph M. Johnson.
Newberry	Newberry	502	8	76.8	− 0.9	101	17†	45	12	39	4.36	− 0.12	1.40	0	14	6	15	9	sw.	W. G. Peterson.
Pelzer	Anderson	873	7	.....	.....	.....	.....	.....	.....	.....	2.16	.....	0.80	0	7	21	1	8	w.	J. M. Ward.
Pinopolis	Berkeley	55	19	.....	.....	.....	.....	.....	.....	.....	9.48	+ 3.60	2.50	0	14	7	4	19	nw.	Miss E. P. Ravenel.
St. George	Dorchester	109	24	75.3	− 3.1	95	17†	48	12	37	9.30	+ 3.99	2.80	0	8	20	2	8	s.	G. F. Lewis.
St. Matthews	Orangeburg	269	24	76.6	− 1.2	100	27	49	12	29	5.64	− 0.49	1.41	0	11	17	3	10	n.	J. S. Wannamaker.
Saluda	Saluda	530	10	76.7	.....	105	23	43	12	43	4.70	.....	1.10	0	11	19	5	6	w.	Mrs. F. V. J. Maxwell.
Santuc	Union	572	17	77.3	+ 1.0	102	17	46	12	42	3.34	− 0.87	0.76	0	11	11	11	8	ne.	E. W. Jeter.
Smith Mills	Williamsburg	62	17	.....	.....	.....	.....	.....	.....	.....	9.42	+ 3.50	1.00	0	13	16	4	10	se.	W. G. Walker.
Society Hill	Darlington	75	15	75.2	− 2.0	99	16†	49	11	37	5.46	− 0.30	1.25	0	13	8	17	5	e.	T. Ellison Simpson.
Spartanburg	Spartanburg	875	21	76.0	− 0.8	99	17	50	11†	39	4.03	− 1.12	1.35	0	13	17	0	13	.....	F. P. Robinson.
Summerville	Dorchester	75	15	76.7	− 0.2	98	16†	48	12	37	4.45	− 0.15	1.46	0	11	5	22	3	sw.	Miss E. H. Gadsden.
Sumter	Sumter	.....	.....	78.6	.....	97	16†	48	12	36	4.73	.....	1.00	0	13	13	17	0	sw.	Luanne L. Wannamaker.
Trenton	Edgefield	620	15	76.9	− 1.5	99	17	48	11	31	5.69	+ 1.09	1.30	0	14	10	15	5	s.	C. A. Long.
Walterboro	Colleton	69	8	.....	.....	97	17	.....	....	.....	4.08	.....	1.50	0	8	19	0	11	.....	H. A. Patterson.
Winnsboro	Fairfield	545	22	74.4	− 2.3	97	21	46	12	27	5.50	+ 0.91	1.65	0	7	14	12	4	se.	J. W. Seigler.
Winthrop College	York	690	13	73.5	− 2.1	98	20	40	11	38	5.57	− 0.36	1.75	0	8	8	15	7	sw.	W. P. Goodman.
Yemassee	Hampton	24	17	75.4	− 3.8	102	17	44	12	42	4.70	− 1.52	1.31	0	12	20	0	10	w.	J. G. Hutson.
Georgia.																				
Abbeville	Wilcox	180	10	.....	.....	.....	.....	.....	.....	.....	7.26	+ 3.31	1.92	0	11	24	0	6	w.	W. H. Calhoun.
Adairsville	Bartow	772	21	76.0	+ 0.1	98	18†	44	12	45	0.80	− 3.59	0.55	0	2	19	8	3	.....	Mrs. R. C. Evins.
Albany	Dougherty	232	26	78.6	− 2.8	101	18†	49	12	33	4.65	+ 0.42	0.96	0	10	18	3	6	se.	George C. Brosnan.
Allapaha	Berrien	293	23	76.3	− 3.1	98	17	47	12	37	6.34	+ 1.24	2.53	0	12	13	12	5	ne.	J. F. Rice.
Americus	Sumter	362	28	78.5	− 2.1	102	17†	45	12	38	4.05	− 0.45	0.90	0	11	19	2	9	.....	Joseph M. Bryan.
Athens	Clarke	694	31	75.7	− 0.4	98	17†	45	12	36	5.33	+ 0.76	1.08	0	14	23	3	4	w.	C. L. Cox.
Atlanta	Fulton	1,218	48	75.8	+ 0.1	96	17	47	12	30	3.10	− 0.89	1.81	0	14	16	7	7	w.	U. S. Weather Bureau.
Augusta	Richmond	180	67	76.8	− 2.1	98	17	48	12	35	5.10	+ 0.61	1.38	0	11	11	10	9	se.	Do.
Bainbridge	Decatur	119	21	76.4	− 4.1	102	18	49	12	38	4.64	− 0.08	2.30	0	13	18	3	9	s.	W. H. Morrow.
Butler	Taylor	650	12	.....	.....	.....	.....	.....	.....	.....	5.29	+ 1.08	1.02	0	11	26	1	3	w.	Mrs. Mamie F. Wallace.
Camak	Warren	613	21	77.2	− 0.6	101	28	44	12	35	2.97	− 1.50	0.76	0	7	12	2	16	w.	J. A. Chapman.
Canton	Cherokee	894	22	.....	.....	.....	.....	.....	.....	.....	1.09	− 2.52	0.26	0	7	19	4	7	.....	Mrs. Ada P. Mills.
Carlton	Madison	557	14	.....	.....	.....	.....	.....	.....	.....	4.21	− 1.48	0.86	0	11	20	4	6	wn.	M. C. Power.
Clayton	Rabun	2,100	19	71.6	− 0.1	94	21	44	12	39	6.49	+ 0.52	1.85	0	10	17	7	6	.....	A. J. Duncan.
Columbus	Muscogee	262	25	78.6	− 0.7	101	28	49	12	37	4.72	+ 0.63	0.93	0	12	20	0	10	nw.	A. J. Land.
Concord	Pike	850	....	75.1	.....	95	17†	47	12	30	4.02	.....	1.25	0	10	21	6	3	.....	C. T. Smith.
Covington	Newton	800	21	.....	.....	.....	.....	.....	.....	.....	3.55	− 0.76	0.85	0	10	11	11	8	s.	Mrs. Sarah E. Cruse.
Dahlonega	Lumpkin	1,519	21	74.2	+ 1.6	96	17	41	12	35	3.83	− 1.87	1.10	0	17	9	20	1	se.	Prof. B. P. Gaillard.
Diamond	Gilmer	2,020	21	71.4	− 0.1	94	17†	40	12	41	5.37	− 0.80	1.49	0	10	15	13	2	.....	Robert A. Kimzey.
Dublin	Laurens	452	19	75.8	.....	98	17	46	12	38	6.93	+ 2.27	2.04	0	14	17	9	4	se.	Mrs. M. E. Martin.
Eastman	Dodge	361	21	77.8	− 2.4	99	17	46	12	36	5.47	+ 1.85	1.04	0	14	10	10	10	w.	Mrs. H. T. Bohannon.
Eatonton	Putnam	577	9	75.4	.....	97	17†	43	12	38	4.04	− 0.65	0.79	0	12	....	....	....	.....	Prof. W. C. Wright.
Elberton	Elbert	710	21	76.8	− 0.8	100	27†	46	12	33	3.50	− 1.33	1.02	0	9	19	9	2	w.	H. A. Roebuck.
Experiment	Spalding	946	12	76.0	− 0.3	96	28	48	12	28	6.01	+ 1.63	1.60	0	14	11	17	2	.....	M. V. Calvin.
Fort Gaines	Clay	116	25	78.1	− 1.7	100	18	47	12	36	5.33	+ 1.03	1.75	0	10	17	3	10	ne.	Miss Eva T. Graham.
Gainesville	Hall	1,254	34	74.1	− 0.7	97	28	41	12	43	3.86	− 0.74	1.03	0	9	13	13	4	e.	W. C. Walker.
Gillsville	do	1,052	21	.....	.....	.....	.....	.....	.....	.....	2.67	− 1.33	1.10	0	7	27	0	3	n.	George W. Lichtenstine.
Glennville	Tattnall	.....	8	77.6	.....	99	17	48	12	34	4.72	.....	1.52	0	12	14	12	4	sw.	Miss Fannie Barnard.
Gore	Chattooga	729	14	75.4	+ 0.6	100	18†	44	12	44	2.06	− 3.21	0.93	0	10	20	7	3	s.	H. M. Ponder.
Granite Hill	Hancock	.....	1	74.8[c]	.....	99	18	45	12	38	6.49	.....	2.36	0	12	....	....	....	.....	George White, jr.

TABLE 1.—*Climatological data for June, 1913. District No. 2*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
Georgia—Continued.																			
Greensboro	Greene	598	11	75.8	− 1.5	97	17	43	12	38	6.11	+ 1.57	1.98	0	9	14	8	8	sw.	R. L. Caldwell.
Griffin	Spalding	975	24	77.8	+ 0.4	98	18†	50	12	30	7.60	+ 3.11	2.05	0	14	11	14	5	nw.	J. M. Mathews.
Harrison	Washington	378	14	76.2	− 1.2	97	17†	45	12	36	6.54	+ 1.47	1.93	0	12	8	16	6	s.	Thomas L. Wood.
Hartwell	Hart	838	3	77.3	.....	101	17	49	12	34	5.44	.....	2.29	0	9	7	22	1	w.	W. B. McMullan.
Hawkinsville	Pulaski	235	17	77.3a	− 1.4	98	17†	46	12	40	3.07	− 1.37	1.00	0	8	20	1	9	.....	R. H. Wood.
Highland Dam	Muscogee	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.17	.....	0.72	0	14	20	1	9	.....	F. C. Tibbs.
Jesup	Wayne	101	18	77.0	− 2.9	100	17	49	12	35	6.17	− 0.46	2.50	0	7	10	16	4	s.	W. L. Belcher.
Lisbon	Lincoln	326	6	76.6	.....	100	28	44	12	40	2.79	.....	1.08	0	12	.....	.....	.....	.....	B. J. DuBose.
Lost Mountain	Cobb	1,175	13	75.4	+ 0.1	99	28	44	12	36	5.11	+ 0.16	2.00	0	7	3	25	2	e.	A. N. Mayes.
Louisville	Jefferson	259	20	76.4	− 1.9	97	17†	47	12	34	5.59	+ 0.79	1.54	0	12	14	13	3	.....	J. C. Little.
Lumber City	Telfair	150	4	.....	.....	.....	.....	.....	.....	.....	7.21	.....	1.10	0	12	18	1	11	s.	Walter A. Hilton.
Lumpkin	Stewart	650	18	77.0	− 2.1	98	18†	44	12	31	3.58	− 0.06	1.31	0	10	17	9	4	nw.	R. T. Humber.
Macon	Bibb	370	32	76.8	− 1.2	97	17	46	12	37	3.54	− 0.54	1.88	0	11	15	9	6	s.	U. S. Weather Bureau.
Marshallville	Macon	500	20	78.6	− 1.2	102	27	45	12	41	4.61	+ 0.49	0.89	0	10	16	9	5	w.	E. C. Bryan.
Milledgeville	Baldwin	276	25	77.2a	− 2.5	98	27	46	12	34	6.41	+ 2.23	3.34	0	9	21	3	6	nw.	Prof. O. M. Cone.
Millen	Jenkins	158	25	78.0	− 0.2	102	17	44	12	40	6.02	+ 0.68	2.20	0	9	20	0	10	se.	M. G. McComb.
Mineral Bluff	Fannin	1,571	....	71.8§	.....	95	29	41	12	46	4.80	.....	1.00	0	8	.....	.....	.....	.....	W. T. S. Teckey.
Montezuma	Macon	292	8	.....	.....	.....	.....	.....	.....	.....	4.80	.....	2.34	0	12	22	0	8	ne.	J. C. Collins.
Monticello	Jasper	800	18	76.9	− 1.4	99	27†	46	12	34	5.56	+ 1.04	1.55	0	13	24	3	3	.....	Miss Maude Penn.
Newnan	Coweta	959	24	76.8	− 0.6	100	29	45	12	34	2.90	− 1.64	1.50	0	11	20	4	6	ne.	Mrs. Ida J. Milner.
Norcross	Gwinnett	1,078	3	.....	.....	.....	.....	.....	.....	.....	2.04	.....	0.52	0	10	22	3	5	.....	W. O. Medlock.
Point Peter	Oglethorpe	600	23	74.6	− 2.2	96	27	45	12	38	4.35	− 0.22	1.20	0	6	12	16	2	sw.	C. M. Witcher.
Poulan	Worth	365	23	77.6	− 1.2	102	17†	47	12	41	7.67	+ 3.20	2.25	0	12	18	8	4	.....	C. T. Merritt.
Putnam	Marion	.....	13	76.9	− 2.1	101	18†	44	12	39	2.62	− 1.45	0.65	0	9	14	9	7	s.	Miss Mildred Collum.
Quitman	Brooks	173	27	77.2	− 2.7	99	1	51	12	39	8.69	+ 2.25	2.55	0	11	21	2	7	ne.	A. B. Jones.
Ramhurst	Murray	900	20	73.6	− 3.1	99	28	45	12†	36	5.86	+ 0.95	1.45	0	12	14	13	3	sw.	D. E. Humphreys.
Resaca	Gordon	657	19	.....	.....	.....	.....	.....	.....	.....	2.27	− 2.38	0.70	0	4	27	1	2	ne.	D. A. Norton.
Rome	Floyd	576	54	76.8	− 0.6	99	18†	47	12	41	5.24	+ 1.18	2.20	0	10	23	3	4	w.	W. M. Towers.
St. George	Charlton	50	6	75.9	.....	97	17	51	12	37	8.40	.....	5.25	0	10	22	5	3	se.	A. N. Lund.
Savannah	Chatham	65	62	77.0	− 2.2	98	17	49	12	30	4.28	− 1.11	1.80	0	12	10	12	8	s.	U. S. Weather Bureau.
Statesboro	Bulloch	253	13	78.8	− 0.3	104	17	48	12	39	5.06	− 0.74	1.40	0	13	11	16	3	sw.	W. C. Cromley.
Talbotton	Talbot	750	19	78.4	+ 0.6	103	28	45	12	39	4.89	+ 1.32	1.39	0	10	18	0	12	se.	Dr. E. L. Bardwell.
Tallapoosa	Haralson	1,150	14	75.4	− 0.6	101	18	44	12	40	4.79	+ 0.80	1.68	0	10	10	6	14	se.	Miss Averil L. Southard.
Thomasville	Thomas	273	31	76.9	− 0.7	98	18	49	12	34	7.90	+ 1.35	3.39	0	16	10	11	9	sw.	U. S. Weather Bureau.
Toccoa	Stephens	1,050	27	75.2	0.0	101	17	45	12	41	3.63	− 0.91	0.95	0	12	25	2	3	w.	J. A. Creasy.
Valdosta	Lowndes	220	8	77.8	.....	102	17	47	12	38	11.90	.....	3.00	0	10	26	0	4	w.	Miss Annie L. Twitty.
Valona	McIntosh	10	15	77.2	− 1.6	99	26†	50	12	34	2.96	− 2.25	1.56	0	3	27	0	3	se.	George E. Atwood.
Washington	Wilkes	630	22	75.4	− 2.4	96	28	45	12	30	5.80	+ 1.32	1.69	0	10	22	4	4	ne.	Miss Ella B. Smith.
Waycross	Ware	131	24	78.0	− 2.3	99	17	49	12	34	3.37	− 2.48	1.23	0	10	16	7	7	sw.	Dr. J. F. Wilson.
Waynesboro	Burke	86	21	78.4	+ 0.3	100	17	50	12	37	6.34	+ 1.38	1.15	0	11	13	6	11	s.	Mrs. H. W. Blount.
West Point	Troup	620	23	76.2	− 3.1	98	18	46	12	36	2.76	− 1.75	1.17	0	11	12	5	13	w.	E. N. [illegible]unn.
Woodbury	Meriwether	641	12	.....	.....	.....	.....	.....	.....	.....	3.12	− 0.98	1.03	0	8	21	1	8	s.	E. T. Riggins.
Florida.																				
Apalachicola	Franklin	24	8	77.6	.....	96	17	56	11	26	2.78	.....	1.00	0	5	17	11	2	s.	G. H. Whiteside.
Arcadia	De Soto	61	12	81.3	+ 0.5	9	22	61	2	32	4.13	− 3.27	1.19	0	14	7	22	1	e.	C. S. Bushnell.
Archer	Alachua	92	2	79.2b	− 1.0	96	7	57b	13	25	2.30	− 5.53	0.90	0	8	.....	.....	.....	.....	R. B. Hodgson.
Avon Park	De Soto	150	14	78.6	− 1.4	95	1	60	13	27	6.72	− 0.06	1.49	0	13	16	9	5	e.	William King.
Bartow	Polk	115	25	77.0	− 3.5	94	14	53	13	34	6.55	− 1.42	2.15	0	14	9	4	17	se.	William Hood.
Bassenger	Osceola	.....	.....	77.6	.....	94	1	60	13	31	3.75	.....	0.75	0	9	11	12	7	.....	L. N. Kline.
Bradentown	Manatee	10	29	76.4	− 3.7	92	17†	57	14	31	9.63	+ 1.71	2.91	0	12	14	15	1	sw.	F. H. Braymer.
Bristol	Liberty	.....	.....	.....	.....	96	16†	.....	.....	.....	14.55	.....	.....	0	13	10	11	9	e.	J. N. Harrell.
Brooksville	Hernando	126	20	80.0	0.0	97	17	60	12†	32	6.62	− 1.97	1.95	0	10	15	11	4	.....	C. C. Peck.
Carrabelle	Franklin	10	14	77.6	− 2.4	99	17	54	11†	34	3.30	− 1.59	1.15	0	6	.....	.....	.....	.....	J. J. Blomquist.
Cedar Key	Levy	10	24	79.2	− 1.1	90	28	59	11†	22	3.39	− 2.41	1.88	0	6	.....	.....	.....	w.	S. T. White.
Clermont	Lake	105	19	81.4	0.0	101	17	57	13	37	1.80	− 5.10	0.57	0	4	9	20	1	e.	S. S. Fesler.
Crescent City	Putnam	.....	15	80.0	− 0.1	98	17	56	13	34	1.88	− 4.19	0.55	0	6	13	14	3	.....	Walter Cliff.
De Funiak Springs	Walton	190	14	78.6	− 0.5	102	18	51	12	38	5.55	− 0.36	1.80	0	15	16	9	5	s.	W. O. H. Shepard.
De Land	Volusia	27	16	77.2	− 1.7	97	17	51	13	37	3.12	.....	0.98	0	9	6	24	0	se.	A. C. Haynes.
Eustis	Lake	56	22	80.4	− 0.3	99	16	54	13	39	2.35	− 4.11	0.88	0	7	24	4	2	e.	C. T. Smith.
Federal Point	Putnam	10	21	78.4c	− 0.4	100c	17	53c	13	37	3.91	− 2.30	0.81	0	10	12	16	2	e.	E. S. Hubbard.
Fellsmere	St. Lucie	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.14	.....	1.84	0	9	.....	.....	.....	.....	W. A. James.
Fenholloway	Taylor	75	6	77.6	.....	100	17	52	13	40	10.90	.....	4.00	0	7	.....	.....	.....	sw.	Miss E. Wigglesworth.
Ft. Lauderdale	Dade	10	....	78.6	.....	91	1	64	15	23	5.07	.....	1.04	0	8	5	24	1	.....	W. M. Heine.
Ft. Meade	Polk	125	23	.....	.....	.....	.....	.....	.....	.....	5.92	− 3.48	2.15	0	7	.....	.....	.....	.....	G. L. Brodrick.
Ft. Myers	Lee	12	40	79.0	− 1.0	92	31	64	13	26	3.76	− 5.27	0.84	0	15	24	6	0	se.	W. F. Gwynne.
Ft. Pierce	St. Lucie	10	12	77.9a	− 0.8	91a	28	66a	13	21	2.62	− 5.46	1.08	0	8	.....	.....	.....	e.	T. C. Nicholson.
Gainesville	Alcachua	176	17	77.6	− 3.3	98	17	54	13	32	4.07	− 2.83	1.26	0	16	14	4	12	ne.	John Schnabel.
Garniers (near)	Walton	22	1	77.6	.....	102	18	53	14	39	7.58	.....	5.60	0	9	23	0	7	se.	U. S. Forest Service.
Grasmere	Orange	175	15	77.9	− 3.0	95	16†	53	13	33	3.03	.....	1.17	0	11	27	3	0	.....	J. B. Escott.
Griffin	Dade	.....	.....	75.0	.....	89	1	59	15	25	9.23	.....	2.47	0	16	3	21	6	e.	T. M. Griffin.
Hilliard	Nassau	69	4	77.1	.....	98	17	52	12	33	6.88	.....	3.10	0	9	15	13	2	.....	B. A. Tibbits.
Homestead	Dade	12	3	77.8	.....	92	2	64	16	24	8.61	.....	1.38	0	16	1	23	6	e.	J. A. Kahl.
Hypoluxo	Palm Beach	9	17	77.6	− 0.6	92	29	62	14	25	3.91	− 4.93	1.05	0	12	15	10	5	e.	G. A. Andevine.
Inverness	Citrus	43	13	79.2	− 0.3	95	16†	55	12	31	2.24	− 4.44	1.50	0	3	4	24	2	se.	W. H. Miller.
Jacksonville	Duval	10	42	77.3	− 0.6	97	17	54	12	28	4.55	− 0.91	2.43	0	10	11	15	4	se.	U. S. Weather Bureau.
Jasper	Hamilton	152	12	76.7	− 2.2	97	17	50	12†	36	6.60	− 0.24	1.85	0	12	8	17	5	w.	Mrs. W. C. Caldwell.
Johnstown	Bradford	125	13	.....	.....	97	17	52	13	32	4.32	− 2.52	0.90	0	14	9	15	6	.....	A. M. C. Brasch.
Key West	Monroe	14	42	80.2	− 2.0	8	12	70	15	14	3.13	− 1.12	1.25	0	11	9	12	9	se.	U. S. Weather Bureau.
Kissimmee	Osceola	65	20	79.2	− 1.0	95	2†	54	13	32	3.45	− 3.68	0.92	0	8	7	14	9	se.	J. A. Simpson.
Lake City	Columbia	210	28	77.5	− 2.4	97	17†	52	13	36	4.86	− 2.16	1.28	0	15	7	16	7	se.	W. B. Knight.
Live Oak	Suwanee	109	13	77.6	.....	98	17	52	12†	37	8.67	+ 0.44	2.17	0	14	12	10	8	s.	Rev. J. A. Montgomery.
Lucerne Park	Polk	.....	1	79.0	.....	95	1	57	13	29	9.84	.....	2.52	0	12	4	26	0	se.	L. D. Niles.
Macclenny	Baker	125	16	77.5	− 2.1	97	17	52	13	34	4.10	− 1.78	0.94	0	9	7	21	2	.....	Griffing Bros. Co.
Madison	Madison	200	13	78.0	− 2.2	98	17	52	12†	33	8.70	+ 3.23	1.69	0	17	11	3	16	ne.	E. J. Vann.
Malabar	Brevard	24	19	78.0	− 1.7	93	2	58	13	2	2.90	− 2.66	1.05	0	9	20	9	0	se.	J. F. Farley.
Marianna	Jackson	80	10	78.8	− 0.5	103	16†	51	12	42	5.66	+ 0.76	3.15	0	7	15	6	9	n.	W. W. Brooks.
Merritts Island	Brevard	20	30	77.9	− 1.7	92	1	59	14	27	3.61	− 3.18	0.96	0	6	12	15	3	se.	F. Ulrich.
Miami	Dade	47	11	78.8	− 1.6	87	30	67	16	17	4.07	− 3.82	1.41	0	11	2	10	18	se.	U. S. Weather Bureau.
Middleburg	Clay	10	12	77.0f	− 2.0	98f	17	52a	13	36	4.84	− 2.54	1.85	0	9	.....	.....	.....	.....	G. A. Chalker.
Molino	Escambia	49	11	.....	.....	99	18	.....	.....	.....	7.08	+ 0.83	2.80	0	5	23	0	7	se.	W. H. Trimmer.
Monticello	Jefferson	207	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. B. Miller.
Mount Pleasant	Gadsden	260	7	77.0	.....	100	18	50	12	36	10.40	.....	2.75	0	11	.....	.....	.....	s.	Miss Addie Grubb
Newport	Wakulla	.....	11	.....	.....	.....	.....	.....	.....	.....	6.77	.....	1.50	0	9	.....	.....	.....	.....	Nathaniel Brewer.
New Smyrna	Volusia	9	28	76.2	− 2.1	93	2†	56	13	28	2.43	− 3.04	1.00	0	5	11	16	3	se.	F. J. Nordman.

TABLE 1.—*Climatological data for June, 1913. District No. 2*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
***Florida*—Continued.**																				
Ocala	Marion	98	22								3.77	− 1.10	2.48	0	9	15	6	9	ne.	U. S. Weather Bureau.
Orange City	Volusia	39	19	77.6	− 3.1	98	4†	52	13	41	3.27	− 3.69	0.91	0	6	20	3	7	w.	J. D. Graham.
Orlando	Orange	111	20	79.3	− 0.9	95	17	55	13	31	2.35	− 5.29	1.72	0	6	7	9	14	se.	James Thomson.
Panama City	Washington																			
Pensacola	Escambia	149	33	77.4	− 2.6	96	18	55	11	24	3.77	− 1.10	2.48	0	9	15	6	9	ne.	U. S. Weather Bureau.
Pinellas Park	Pinellas	20	2	77.8	.....	94	19	57	13	27	3.91	.....	1.87	0	6	15	10	5	w.	Miss E. Borgman.
Plant City	Hillsboro	121	19	79.8	− 0.2	98	17	61	14	34	5.38	− 3.12	2.05	0	10	14	13	3	s.	E. B. Trask.
Ritta	Palm Beach			77.6	.....	92	11†	61	14	26	3.69	.....	0.73	0	15	20	1	9	se.	M. Toda.
Rockwell	Marion	10	11	78.2[g]	− 2.4	98[g]	17	55[g]	13	31	6.28	+ 0.34	1.60	0	9				w.	Dunellon Phos. Co.
St. Augustine	St. Johns	10	61	77.3	− 1.7	95	2	54	13	31	4.75	− 0.29	3.60	0	4	28	1	1	se.	E. F. Joyce.
St. Cloud	Osceola			76.8	.....	96	1†	51	13	40	5.62	.....	2.00	0	9	17	1	12	e.	J. T. Bearss.
St. Leo	Pasco	140	16	78.0	− 2.6	94	17	55	13	28	6.94	− 2.56	1.84	0	12	14	14	2	e.	Gerard Schneider.
Sand Key	Monroe		1	79.2	.....	87	13	68	6	16	3.43	.....	1.84	0	6	14	8	8	se.	U. S. Weather Bureau.
Sanford	Orange	25	5	77.4	.....	95	1	56	13	33	6.57	.....	2.80	0	9	17	9	4	se.	H. C. Du Bose.
Satsuma Heights	Putnam	98	5	78.8	.....	99	17	55	12†	34	1.94	.....	0.70	0	6	12	16	2	.....	Satsuma Company.
Switzerland	St. Johns	10	20	77.5[b]	− 1.1	95[b]	17	55[b]	13	32	3.75	− 1.83	2.00	0	6				.....	Mrs. W. C. Steele.
Tallahassee	Leon	192	26	77.2	− 1.7	99	19	51	12	30	7.77	+ 1.26	1.75	0	14	17	7	6	w.	W. H. Markham.
Tampa	Hillsboro	79	23	78.9	+ 0.2	96	17	59	13	26	6.75	− 1.59	2.11	0	9	9	17	4	e.	U. S. Weather Bureau.
Tarpon Springs	Pinellas	20	28	78.6	− 0.9	95	25	54	13	31	4.33	− 2.79	1.43	0	10	16	10	4	w.	A. P. Albaugh.
Titusville	Brevard	16	17	77.8	− 1.1	98	1	57	13	32	3.07	− 4.38	1.39	0	11	12	14	4	se.	F. M. Taylor.
Wausau	Washington	250	13	78.6	− 1.5	102	18	51	12	39	6.30	+ 0.45	4.90	0	6	10	14	6	s.	Curtis Jones.
Zona	Dade			76.4	.....	89	1†	57	15	29	6.86	.....	2.25	0	16	11	18	1	.....	W. C. Hill.
Alabama.																				
Alaga	Houston	105	8								6.70	.....	2.07	0	11				.....	James L. Willis.
Andalusia	Covington	488		77.5	.....	100	18	49	12	43	6.46	.....	3.00	0	6	15	7	8	.....	W. N. Rushton.
Anniston	Calhoun	728	22	75.6	+ 0.6	98	18	47	12	39	3.53	− 0.35	1.36	0	17	15	13	2	e.	U. S. Weather Bureau.
Ashville	St. Clair	685	20	75.4	− 2.1	99	25†	46	12	41	6.25	+ 2.03	1.94	0	8	21	4	5	.....	A. L. Cather.
Auburn	Lee	732	31	78.2	+ 0.4	102	28	47	12	37	5.11	+ 0.81	2.45	0	11	9	12	9	sw.	Dr. Jas. T. Anderson.
Benton	Lowndes	149	12								3.35	+ 0.61	1.24	0	6				.....	S. T. Pruitt.
Bermuda	Conecuh		26	78.4	+ 0.6	107	18	49	12	42	2.78	− 1.41	1.58	0	8	12	16	2	se.	M. J. Morris.
Birmingham	Jefferson	701	25	77.4	− 0.5	98	28	51	11	32	2.75	− 1.13	0.97	0	9	17	10	3	s.	U. S. Weather Bureau.
Calera	Shelby	500	12								3.90	− 0.71	1.08	0	8				.....	L. G. Privett.
Camp Hill	Tallapoosa	738	12	77.2	− 0.7	100	17	48	10†	42	2.91	− 1.02	1.00	0	6	10	10	10	s.	Dr. Lyman Ward.
Citronelle	Mobile	331	25	78.2	− 1.4	99	18	53	12	29	4.53	− 0.86	1.07	0	10	16	10	4	s.	Rev. W. H. Rowe.
Clanton	Chilton	590	20	77.4	0.0	99	18	50	12†	38[b]	4.67	+ 1.20	1.57	0	7				.....	Joseph B. Downs.
Cochrane	Pickens	100	3								1.38	.....	0.91	0	8				.....	T. H. G. Cook.
Cordova	Walker	334	22	76.8	+ 0.1	100	18	47	11	40	4.30	− 0.44	1.10	0	5	22	2	6	s.	Scott Maxwell.
Dadeville	Tallapoosa	760	8								1.95	.....	0.55	0	7				.....	Dr. W. B. Fulton.
Daphne	Baldwin		22	77.2	− 2.7	99	18	52	11†	33	5.25	− 0.17	1.75	0	7	22	2	6	ne.	John H. Young.
Demopolis	Marengo		21								5.29	+ 1.17	2.50	0	7				.....	George E. Pegram.
Dothan	Houston			77.8	.....	98	18†	51	10†	31[b]	3.94	.....	1.93	0	11	17	11	2	sw.	L. G. Biggers.
Eufaula	Barbour	200	29	75.8	− 3.1	98	18†	45	12	36	3.09	− 0.55	1.42	0	9				.....	Dr. J. B. Whitlock.
Evergreen	Conecuh	285	29	77.4	− 1.2	98	2†	50	12	35	4.45	− 0.98	1.46	0	8				.....	George W. Salter.
Flomaton	Escambia	91	21	77.7	− 1.7	101	2	52	12	34	7.42	+ 1.69	2.65	0	8	13	2	15	s.	T. J. Farris.
Fort Deposit	Lowndes	520	29	76.8	− 2.6	99	18	49	12	36	2.88	− 1.43	0.53	0	10				.....	J. F. Hattemer.
Gadsden	Etowah	621	29	78.6	+ 2.1	104	18	48	12	41	2.96	− 1.50	1.05	0	10				.....	D. P. Goodhue.
Goat Rock	Lee										3.99	.....	1.17	0	10				.....	B. B. Hamby.
Goodwater	Coosa	826	18	76.4	− 1.5	100	28	45	12	41	3.52	− 0.43	0.98	0	9				.....	Miss Daisy Buice.
Greensboro	Hale	220	34	79.0	+ 0.6	97	18	52	11	28	3.60	− 0.25	1.53	0	7				.....	W. E. W. Yerby.
Greenville	Butler	444	12								2.62	− 1.96	1.11	0	5				.....	E. M. Lewis.
Hamilton	Marion		17	76.8	+ 0.1	100	19†	40	12	47[d]	2.02	− 1.84	1.14	0	5	18	7	5	sw.	Prof. H. O. Sargent.
Healing Springs	Washington	362									1.66	.....	0.48	0	7				.....	James E. Lipscomb.
Livingston	Sumter	160	29	77.9	− 1.1	97	3	52	11	33	1.73	− 3.05	0.60	0	5				.....	Robert L. King.
Lock No. 4	Talladega	510	16	76.4	− 1.0	99	18	48	12	38	2.34	− 1.59	0.97	0	9				.....	U. S. Engineers.
Maple Grove	Cherokee		20	77.8	+ 1.6	102	27	45	11	40	4.29	+ 0.34	1.15	0	5	10	19	1	se.	Mrs. A. L. Awbrey.
Mentone	Dekalb	1,595	6								2.64	.....	0.78	0	5				.....	E. Mason.
Milstead	Macon		10								3.97	.....	0.98	0	6				.....	W. U. Wall.
Mobile	Mobile	84	41	78.6	− 0.5	100	18	56	11	28	3.88	− 2.07	1.65	0	12	13	13	4	n.	U. S. Weather Bureau.
Montgomery	Montgomery	240	41	78.8	− 0.3	98	18	52	12	32	1.71	− 2.50	0.94	0	10	16	10	4	sw.	Do.
Newbern	Hale		21	80.1	+ 0.9	103	18	52	12	41	1.85	− 2.19	0.70	0	6	14	13	3	s.	Dr. J. Huggins.
Oneonta	Blount	857	19	75.0	− 0.6	99	18†	44	12	43	5.80	+ 0.94	2.38	0	11	17	0	13	n.	Aquilla J. Ketchum.
Opelika	Lee	917	34	76.7	− 1.8	95	18†	49	12	29	2.79	− 1.39	0.87	0	6				.....	A. H. Read, jr.
Ozark	Dale	400	11	77.8	.....	101	18	49	12	32									.....	James A. Scott.
Prattville	Autauga	281	13	77.0	− 1.0	101	17	45	11	39[a]	1.63	.....	0.54	0	6	18	10	2	s.	Joseph B. Bell.
Pushmataha	Choctaw		22	76.7	− 2.2	97	2	50	12†	35	2.61	− 2.11	0.75	0	8	3	15	12	se.	W. N. Horn.
Robertsdale	Baldwin	148	1								5.09	.....	1.89	0	12				.....	Carl Boseck.
Selma	Dallas	147	33	82.4[d]	+[d]3.3	102	18	55	....	40[a]	1.51	− 2.65	0.62	0	6				.....	Charles F. Brislin.
Spring Hill	Mobile	312	9					53	12	....	3.38	.....	0.72	0	8	19	4	7	se.	Spring Hill College.
Talladega	Talladega	554	23	77.8	− 0.4	100	18†	49	12†	40	9.52	+ 5.66	2.50	0	8	13	5	12	n.	J. W. Vandiver.
Tallassee	Elmore		22								3.09	− 1.11	1.58	0	9				.....	P. A. Noble.
Thomasville	Clarke	385	22	78.4	− 1.1	101	28	52	12	38	3.87	− 0.75	2.13	0	5				.....	Miss H. T. Forster.
Troy	Pike	581	5	79.0	.....	103	18	49	12	36	1.70	.....	0.39	0	12	8	20	2	s.	Frank L. Zimmermann.
Tuscaloosa	Tuscaloosa	230	32	79.6	+ 0.8	103	29	50	11	41	1.02	− 3.46	0.60	0	6				.....	W. S. Wyman, jr.
Tuskegee	Macon		13	79.5	+ 0.4	103	18†	47	12	43	1.62	− 1.95	1.04	0	5	9	19	2	n.	Prof. George W. Carver.
Union Springs	Bullock	216	26	79.2	− 1.0	101	28	48	12	37	3.81	− 0.45	1.05	0	8				.....	P. L. Cowan.
Valley Head	Dekalb	1,031	28	76.3	+ 2.0	101	29	44	12	43[a]	3.13	− 1.89	1.27	0	5	18	9	3	.....	M. T. Floyd, M. D.
Wetumpka	Elmore	205	21	79.0	− 1.0	101	18	49	12	42	2.10	− 1.41	0.78	0	5				.....	Mrs. Emmie Callaway.
Mississippi.																				
Aberdeen	Monroe	210	25	78.5	+ 0.4	102	28	49	12	40	2.31	− 2.30	0.94	0	5	23	3	4	s.	L. D. Godfrey, jr.
Agricultural College	Oktibbeha	424	23	79.8	+ 1.3	100	17†	49	11	34	1.77	− 2.20	0.80	0	10	16	13	1	s.	J. R. Ricks.
Bay St. Louis	Hancock	28	20	78.6	− 1.9	99	18	56	14	31	0.32	− 5.20	0.13	0	5	16	11	3	se.	Brother Matthew.
Biloxi	Harrison	24	22	79.2	− 1.4	100	18	58	11†	30	1.01	− 5.19	0.37	0	4	16	7	7	se.	Miss M. Josie Pope.
Booneville	Prentiss	504	19	78.0	+ 0.7	101	28	48	11†	35	1.26	− 2.85	0.73	0	3	17	11	2	sw.	Dr. D. T. Price.
Brookhaven	Lincoln	500	25	78.6	− 0.9	101	19	53	11†	37	1.67	− 3.42	0.48	0	9	21	2	7	e.	W. J. Bee.
Collins	Covington			78.0	.....	99	18†	52	13	36	5.76	.....	1.69	0	7	17	4	9	s.	G. P. Sledge.
Columbia	Marion	110	9								4.59	.....	2.76	0	8	21	4	5	ne.	N. R. Drummond.
Columbus	Lowndes	191	25	80.0	− 0.1	104	18	49	12	41	1.49	− 2.48	1.26	0	3	24	0	6	ne.	J. B. Love.
Crystal Springs	Copiah	468	21	78.2	− 1.0	102	19	51	11†	38	1.32	− 2.74	0.51	0	6	25	3	2	.....	D. H. Miller.
Edinburgh	Leake		5	77.0	.....	100	19†	48	12	42	1.11	.....	0.65	0	4	18	9	3	s.	J. Y. Blocker.
Enterprise	Clarke	248	8								2.46	.....	0.61	0	8	14	6	10	e.	J. B. Thompson.
Fulton	Itawamba		4								1.56	.....	0.91	0	6	15	14	1	s.	A. D. Graham.
Hattiesburg	Forest	189	20	77.7	− 3.3	98	18	50	12	38	3.01	− 2.35	0.90	0	7	20	2	8	s.	T. C. Spence.

TABLE 1.—*Climatological data for June, 1913. District No. 2*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Mississippi—Contd.																				
Hazelhurst	Copiah	460	23	78.0	− 1.1	100	19	52	11†	36	0.88	− 4.13	0.36	0	7	13	11	6	ne.	J. D. Granberry.
Hickory	Newton	326	3	.....	.....	.....	.....	.....	.....	.....	2.01	.....	1.21	0	3	20	1	9	s.	T. N. McMullen.
Jackson	Hinds	280	26	78.6	− 1.0	101	19	51	11	36	1.45	− 2.47	0.79	0	5	19	5	6	sw.	A. S. Nall.
Lake	Scott	446	25	76.7	− 1.0	98	18†	47	11†	37	0.65	− 4.06	0.22	0	5	21	2	7	se.	Mrs. Eddie McNeel.
Laurel	Jones	241	9	77.8	.....	98	18†	51	13	36	2.11	.....	0.53	0	8	23	4	3	se.	Thomas W. Flynt.
Leakesville	Greene	.....	19	76.6	− 3.3	99	....	50	13	40	4.53	− 1.17	.....	0	6	19	5	6	.....	Dr. Sam Pool.
Louisville	Winston	561	24	78.1	+ 0.8	99	19	49	12	38	1.10	− 3.29	0.37	0	5	.....	.....	.....	.....	B. T. Webster.
McNeill	Pearl River	230	10	78.0	− 1.2	100	19	56	2†	31	2.91	− 2.88	1.12	0	7	12	16	2	se.	Prof. E. B. Ferris.
Macon	Noxubee	185	25	79.0	− 0.2	102	18	48	11	39	0.36	− 4.04	0.15	0	4	20	5	5	w.	Finis E. Carleton.
Magnolia	Pike	415	17	77.5	− 2.3	99	19	52	13	35	4.16	− 0.97	1.25	0	10	8	18	4	se.	Miss Ruby V. Roberts.
Meridian	Lauderdale	375	23	76.9	− 0.4	96	18	50	11	32	3.20	− 1.42	2.34	0	8	15	4	11	sw.	U. S. Weather Bureau.
Merrill	George	76	8	.....	.....	.....	.....	.....	.....	.....	3.83	.....	0.90	0	10	15	6	9	n.	James E. Walters.
Monticello	Lawrence	209	6	78.2	.....	99	19	49	13	36	4.19	.....	2.18	0	8	16	12	2	sw.	Dr. G. A. Teunisson.
Okolona	Chickasaw	311	25	78.6	− 1.2	99	28	50	12	37	4.26	+ 0.76	2.10	0	6	22	4	4	s.	E. J. Henson.
Pascagoula	Jackson	15	4	77.8	.....	96	18	58	11†	24	2.43	.....	0.90	0	5	.....	.....	.....	.....	McVea Young.
Pearlington	Hancock	10	25	77.4	− 2.2	98	18	55	14	33	2.53	− 2.35	1.15	0	6	.....	.....	.....	e.	Miss Annette Koch.
Porterville	Kemper	.....	8	77.6	.....	100	28	47	11	39	1.68	.....	0.85	0	5	20	9	1	se.	I. S. Rea.
Shubuta	Clarke	197	8	.....	.....	.....	.....	.....	.....	.....	1.65	.....	0.72	0	7	18	6	6	s.	George A. Floyd.
Tupelo	Lee	278	14	76.6	.....	97	27	48	12	37	1.41	− 2.83	0.70	0	3	21	6	3	ne.	W. S. Vincent.
Waynesboro	Wayne	191	26	77.4	− 1.1	97	26†	50	12†	36	2.51	− 2.77	1.05	0	5	15	4	11	s.	R. S. Burke.
Woodland	Chickasaw	.....	4	.....	.....	.....	.....	.....	.....	.....	1.90	.....	1.85	0	2	.....	.....	.....	.....	J. L. Ricks.

a, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for June, 1913. District No. 2, South Atlantic and East Gulf States.*

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Virginia.																																
Arvonia	James		.47		.37	.17		1.85	.26													.17	.01	1.41	.28	.88	.03		.17			6.07
Ashland	do				.13			.32																1.01	.21	.05			.42			2.14
Buchanan [1]	do				.39		.08		1.44	.08				.04										.43			.08	.14	.07			2.75
Callaville	Chowan			.35				.11	1.10				.68					T.						.37		.60			.23			3.44
Cape Henry	Coast		1.78	.07	.38			1.65	.61	.03		T.	.30	T.								T.	.04	.23	.07		T.					5.17
Catawba	Roanoke		.06	.16	.10			.55	.30				.34										.10	1.10	.65	.92						4.98
Charlottesville	James		.24		.35		.13	1.22	.21														.46	.80	.13	.84	.06		.05			4.49
Clarksville [1]	Roanoke								1.10	.02			.65	1.31					.42					2.58	.09	.78	.10	.25	.48	.30		8.08
Columbia	James	.15		.30				2.60															.80	.82	.20	.13	.60					5.60
Danville [1]	Roanoke		.16						.49	.12	T.		.22	.55					11					1.03		.16	T.	.93		.43		4.20
Diamond Springs	Coast		.32	.33	.80	.06			3.08	.12			.16	.19												.38		.08				5.52
Dry Bridge	James			.15				1.03	.15									.19						.64	.14	.14			.06			2.50
Hampton	Coast				.45				2.20	.10		.08		.10												.30						3.23
Hot Springs	James			.20	.60	.04		.45	.20								.10	.08	.32		.04		.79		.04							2.86
Ivor	Chowan			T.	.20				1.90	T.			.12												T.	1.10	.10					3.42
Lassiter	James	T.			.60			.30	1.40									T.						1.00	.30	.10			.15			3.85
Lexington	do		.01	.02	.17			1.40	.08			T.						T.				T.	.50	.07		.88	.67	.40	T.			4.20
Lynchburg	do				.01			.53	.10			.04	.04										1.01	.58	.04	.04	.06			.03		2.88
Newport News	Coast				.51	.03		1.53	.87	.04		.01	.01	.02										.05		.15	.01					3.23
Norfolk	do		.36	.02	.92			1.71	1.46	.04		.04	.25	T.								T.		.02	.80	.06	T.		.02			5.70
Petersburg	James		.58	.06	.02			.65	.40									.18						1.80	.08	.20	.25			.70	.37	5.29
Randolph [1]	Roanoke								1.19	.02			.46	.30					.49						1.50				1.02	.12		5.10
Richmond	James		T.	T.	.05			1.68	.04			T.	T.					.01			T.	T.	1.10	.33	.32	T.	T.		.17	.08		3.78
Roanoke	Roanoke		T.					.55	.15				.15					T.	T.				1.98	.03	.45	.48	.24	.97				5.00
Rocky Mount	do	.18						.49					.82											.15			.51	.46	.17			2.78
Ruckersville	James	.30			1.02			.66	.10												.99		.24	.80	1.42	.61	.07		.20			6.41
Runnymede (near)	Chowan				.51			2.10	.94	.08			.08					T.						.11	1.10							4.92
Stuart	Roanoke				.43			.15	.34	T.		T.	1.00											1.08	.30	.50	.10	T.		.11		4.01
West Point	Coast				.43			.51	.36				T.												.80	.11	.03	.03		.05		2.32
Williamsburg	James				.15	.10		.10	1.70					.15										1.45		.10						3.75
North Carolina.																																
Albemarle	Pedee	T.		T.				.21	.63	.43	.01	.92	.09					.08	.42					.35		.40	2.39	.06		.97		6.96
Altapass (near)	Santee			.27		.07	.93	.89	.79			T.						T.	.26		1.29		.27	1.11				.18		T.	T.	6.06
Beaufort	Coast				.08			.04	1.40	.51	.42	.28	.17	.03					.50									.16	.18	.04	.04	.09	3.94
Belhaven	Pungo		.20	.18	.25				1.00	.50	.75	.02					1.58						.03	.70			1.53		.54			7.28
Brewers	Pedee		T.	.30	.05			.25	.53	.18		.04	.42						T.		.03		.12	.35	1.09	.26	1.09	.08				4.79
Caroleen	Santee				.45		.37	.72	.20	.85		T.	.05					T.	.10	1.05			.85	.57					T.	.08		5.29
Chalybeate Springs	Cape Fear		.01		T.				1.34	.13		.40	.50						.17					2.23	.68	.04	1.43	.84		.38		8.15
Charlotte	Santee		.89	.06	.36		.05	.04	.46	.45	T.	.76	T.					.05				.21	.05	.03		.08	T.	.63	.01	.08		4.21
Chimney Rock	do				1.70		.10	.64	1.70	.44									.44					.50	.06				.92			6.50
Durham (near)	Neuse								.17	.10	.07		.47									.05			.85	1.85	.18	.38	.20			4.32
Eagletown	Chowan			T.	.85				2.16	T.		.07	1.55											.22		.84			T.			5.69
Edenton	Coast		1.25	.40	.80							.80	.85													*	*		.75			4.85
Elizabeth City	Pasquotank			T.	1.00				.85	T.		.20	1.20	.20												.20						3.65
Elizabethtown [1]	Cape Fear				.94					.85	.15	.22	.27	.07				.12								.16	.87	.92				4.57
Elkin [1]	Pedee				.20				.66	.16	.05		.21												1.50	.08	.02					2.88
Enfield (near) [1]	Tar					.06			1.08	.02	.01		.85	.60					.22					.01	.01		.25		.09			3.20
Fayetteville [1]	Cape Fear					1.25				1.06	.14	.02	.92	.42					.29	.10				.71	2.55		.02	.48	.55	.88		9.39
Globe (near)	Santee		.25	.72				.90	.29	.23			.17						.07		.40		.29	2.10	.40	.20						6.02
Goldsboro [1]	Neuse			T.	.07	.18			.16	2.40	.11	T.	.69	.11					.02					.12	3.29		.77	.04	T.	.57		8.53
Gorge (near)	Santee				.36			.67	.37	.26		T.	.14						T.		.33		.18	1.08	.40	.05	T.	.18		.43		4.45
Graham [1]	Cape Fear		.43						.40	.18	.04		.58	.03					.35					.32	.10	.88	.03		.29	.52		4.15
Greensboro [1]	do		.66						.31	.06	.08		.52	.08					.17				.60		.77	.04			.10	.07		3.46
Greenville [1]	Tar				.42	.84			.17	1.11	.09		.72	.12					.17					1.52	.16		.40			.17		5.89
Hatteras	Coast		.01	.13	T.				.66	.28	.02	.18	.34																T.			1.62
Henderson	Tar & Roanoke				.06			.25	.01	.24		.12	1.04					.20					.12	.06	.19	.18	1.27	T.	T.	.12		3.86
Hickory	Santee	.02	.51	T.	.14		.24	.18	.28	.64		.08	.22					.05	.02			T.	.37				.02	.04				2.81
Kings Mountain	do	.28		.16	1.02	.25	.12	.66	.18	.03		.06	.08					.37				.75	.20	.40				.04				4.60
Kinston	Neuse			.60	.54	.07			1.50	.20	.19	.10	1.20	.15										1.90			1.40					7.85
Lenoir	Santee		.21		.77				.65	.35			T.						.52	.90			.55					T.				3.95
Lincolnton	Lincoln	.46	.71		.23		.39		.40	.30		.19	.17					.33					.38				.85	.08				4.49
Louisburg [1]	Tar					.25			1.00				.75	.25					.84					T.	.35	.22	T.		.51	.95		5.12
Lumberton [1]	Lumber			.04		1.91	T.	.14	T.	1.27	.36	.05	.81	.18					.19	.15					1.42		.06	.46	.41	.08		7.53
Manteo	Coast		.13	1.32	.66				.62	.06		.02	.22	.28										.02		.04			.06			3.43
Marion	Santee			.07	.79		.19	.88	1.08	.51		T.	.07						.10		.94	.10	.07	.29	.12							7.25
Middletown	Coast			.16	.14		1.90			.10	.07	1.35	.09												.05		.31		.35	1.10	.59		4.17
Moncure [1]	Cape Fear		.07			.27			.36	.52	.08	.07	.40	.12					.32						.11	.05		.39	.49	.24		3.49
Monroe	Pedee		.55	.72				.10	.37	.16	T.	1.30	.09										.21				.22			.75		4.47
Morganton	Santee				.19	T.	.14	.43	.19	.76			.04					.17	.36	.01	T.			.15	.03			1.24	.03				3.74
Mount Airy	Pedee			.07	.04			.46	.21	.07			.31					.09					.09	.05	.40	.10	.80	T.				2.69
Mount Holly [1]	Santee	.42		1.04	.82		.22	.42	.22	.40	.14	T.	.56	.06					.06				.08	.02	.04			.04	.12	.12		4.78
Nashville [1]	Tar		T.		.02	1.20	T.		.90	.08	.03	.03	.95	.23					.05					T.	.41	.06	.12	.05	1.62	.12		5.87
Neuse [1]	Neuse								.35		.06		.78	.29					.65					.21	.85	.06	1.10	.03	.62	.25		5.25
Newbern [1]	do				.10	.07	.77	.04	.57	.12	1.94	.29	.04	.44	.14				.50						.15	1.20			T.	.58	.02	6.97
North Wilkesboro (near)	Wilkes				.03				.41	.25			T.	.25										T.	T.				.80			1.74
Parkersburg	Cape Fear					.70	T.	*	*	*	*	*	2.00	T.										.15	.70		.60	.70	.63	.30	T.		5.78
Pinehurst	Lumber	.15			.15				.50	.25	.39	.40	.40						.30					.45	.30	.12		.25	1.50	.20			5.36
Pittsboro	Cape Fear		.40		.10				.20	.20		.20	.10					1.80						.30	1.10	.10	.20	.10	.35			5.15
Raleigh	Neuse		T.		T.			.56	.52	T.		.29	.47					.38					.10	1.60	.08	.11	.18	.10	.74			5.13
Ramseur	Cape Fear	.01	.19						.70	.04		.31	.09	.01										.26	.07	1.25			.38	.13	.18		3.62
Randleman [1]	do								.81		.25		.55	.20									T.		T.	.50		.40	.30	.76			3.77
Reidsville [1]	do	.01	.42						.27	.19	.06		.69	.15					.04					.32	.17		.31	.31	.62	.74			4.30
Rock House	Savannah	T.		.18	T.	1.18	.39	1.73	2.35	.22								T.	1.17	T.	1.08	.02	T.		1.05				.17	.06	.83		10.43
Rockingham	Pedee							.60	.90	.15	.27	.55	.18						.71				1.38	1.70		.30	.20	.95	.40	.05			8.34
Rocky Mount [1]	Tar			.68					.80			.96	.93	.25					T.									.15	.12	.08			3.97
Salisbury [1]	Pedee								.90				.80										.40	.16	.25	.40	1.72		.75			5.38
Scotland Neck	Tar				.05	.07			1.65			.07	1.28											T.		.04	.41		.15			3.72
Settle	Pedee		.20		T.			1.03	.04	.11		.28	.22					T.		.17		.38	.14	1.28	T.	.27		.43				4.55
Sloan	Cape Fear				1.24		.03		.91	.41	.48	.27	.68					.09						.25		.92	.02		.13	.07		5.50
Smithfield [1]	Neuse					.41			.43	.80	.13	.01	.83	.16					.03					.98	2.31		.06	.87	.94	.25		8.21
Southport	Cape Fear				1.10	.10	.04	.04	2.30	.25	.90	.17	.05						.33								.02			1.05			6.35
Statesville	Pedee				.20			.35	.12	.04		.21	.18					.71						.42				.06		.25			2.54
Tarboro [1]	Tar				T.	1.24			.75	.18	.07	.06	.67	.24					T.					.05	.18		.66		.03				4.13
Tryon (near)	Santee				.05	.04	.06	.25	.31	.12										.21	.07		.05		.65					.09			1.90
Weldon [1]	Roanoke					.18			.45	.09	.01		.26	1.30					.08				.07	T.	.03	.09	.05		T.	T.			2.61
Willard	Cape Fear				.24	1.48		.80	.40		.59	.26	.89											T.	1.04		.10						5.80
Wilmington	do		T.	.01	.60	T.	.45	.01	1.95	.42	.28	.24	T.					.07	.03						T.		.08		.87	1.05			6.06
Winston-Salem [1]	Pedee									.30		.12	.38	.20											1.90							2.90

TABLE 2.—*Daily precipitation for June, 1913. District No. 2*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
South Carolina.																																
Aiken	Edisto					1.20				2.25	.40	.75												1.80					.82	.20	.50	7.92
Allendale ||	Savannah	.55		.10		.10	.40	.30	.05	.10	.60	.80	.10											.50					.90	.80		5.30
Anderson	do					1.13	.10		.60	.18		.37								.06		.70	.01		.13				.05		3.33
Batesburg ||	Edisto		.11	T.					.22	2.33	.41	.44	.14						T.					.31	T.	.04		.64	.52	.24	.11	5.71
Beaufort	Coast	T.					.15				.37	.50												.42					.52			1.96
Blackville ||	Edisto		.08	.07		.14	.26	.21	.33	.39	.60	.20	.25											.08	1.02	.02			.39	.06	.01	4.11
Blairs ||	Broad		.42							.18	.10	.60	.52												.18			.15	.10	.80	.33	3.38
Bowman	Edisto				T.	.68	.04			.70	.14	.48	T.						T.						.20				.81	.18		3.23
Broxton ||	Salkehatchie			.90			.10	.35	.10	.90	.40	.90	.20												.90	.86			.40	.60		6.61
Calhoun Falls ||	Savannah	.26		.16			1.02		.43	.38	.12	.38	.10																			2.59
Camden ||	Wateree	.06	.08			.03			.58	1.99		.12	.84	.04					.04						.42			.70	.40	.42		5.72
Catawba ||	Catawba		.22					1.10		1.12	.12	.45	.81	.04										.95	T.	.44			.65	1.40		7.30
Chappells ||	Saluda		.51				.42			.36	.56	.68	.12												.21	.24		.13	1.83			5.06
Charleston	Coast	.01	.02			.35	.18		.04	.50	.32	.19						.77	T.										T.	.50		2.88
Cheraw ||	Pedee		.04		.01	1.81	.02		.17	.40	.10	.12	.55	.09						T.					.33	.46	.07	.08	.05	.38	.62	5.30
Clemson College	Savannah				.40		.50	.65		1.66		.70							1.86						.10			.60				6.47
Columbia	Congaree		.18		T.	.07	.12	.15	.35	.44	.15	.62	T.					T.						.07	.01		.27	.57		.54		3.54
Conway ||	Waccamaw	.57				1.17	.32	T.		1.80	.75	.05	.45	T.												.52		.30	.72	.20	.62	7.47
Darlington ||	Pedee			T.		1.25	.50		.27	.72	.31	.20	.62	.05					.48	.19					.09	.08		.15	.45	.30		5.66
Dillon	Little Pedee	.01	.10			1.68	.14	T.	.62	.16	.30	.70	.03	.32											.37		.46	.64	.09	.96		6.58
Edisto ||	Edisto		.06			.15	.80	.30		.07	.46	.30	.31											.20	.33	.09			.80	.60		4.47
Edgefield	Savannah				.10		2.00		.10	.34		.90															.15		.83	.45		4.87
Effingham ||	Lynches	T.		1.15		1.60				.70	1.60	.30	.90	T.					.45							.25		.90	.87	.40	.20	9.32
Ferguson ||	Santee		T.		1.00	1.00	T.	T.	.90	.65	.60	.10	.45												T.				2.00	.90		7.60
Florence ||	Pedee			1.25		.69	.04	.16	.03	.80	.38	.16	.62	.10					.06						T.	.08		1.10	.98	.45	T.	6.90
Gaston Shoals ||	Broad				1.22	.04	.22	.06	.32	.63	.09	.03	.09	.04						.06				T.	T.	T.		.08	.10	.06		3.04
Georgetown	Coast	.85	1.80			1.35	1.75	1.25	2.10	1.45	.45	.55							.10									.15	.10	.15		12.05
Greenville ||	Saluda	.10	.02					.07	1.63	1.56	.08	.17								.11			.55		.02			.09		.07	.16	4.63
Greenwood ||	do	.40	.18		.02	.62			.49	1.30	.48	.40							.30	.23				.57	.37					.25		5.61
Heath Springs	Wateree		1.36				.23	.32		.38	.10	1.08	.17											.54			.16		.02	1.09		5.45
Kingstree ||	Black				.30	3.45	.07			2.00	.60	.12	.89													.47		.26	2.20	.37	.25	10.98
Liberty	Savannah		T.	.05			.55	.25	T.	1.60	T.	.20							.30			T.	1.20	T.	.10	.80	T.	.80		.50		6.35
Little Mountain	Saluda		.33		.20				.23	.32	.47	.43						.23							.44		.08		1.30		4.03
Meriwether	Savannah		.22			.62	.19	.98		.30	.13	.63												T.				T.		.38		3.45
Monetta	Edisto		.29	.23	T.		.13	.06	.08	1.11	.09	.62							.01				.54	.38	.23			.23	.36	.25	.04	4.65
Newberry	Saluda				.03	.12	.03	.17	.17	.14	.05	1.00							.08	.50					.37			.05	.25	1.40			4.36
Pelzer ||	do				T.				T.	.10	.22	.32	.06										.80	.32	.34							2.16
Pinopolis	Cooper				1.66	1.65	.19	.35	.50	2.50	.79	.50	.09					.35						.15	.35		.17	.23					9.48
St. George ||	Edisto	T.					2.80			1.60	.70	.40	.40													1.10		1.30	1.00			9.30
St. Matthews ||	Santee		.09			1.41			.40	.65	.60	.10	.55												.20				.35	.97	.32	5.64
Saluda	Saluda		.10				.15		1.10	.23	.13	.80						.10					.65					.74	.10	.60		4.70
Santuc	Broad		.58		T.	.07	.33	.08	.17	.09	T.	.76	T.					.20							.31				.72	.03			3.34
Smith Mills ||	Pedee				.10	1.00	.08	.56	.05	3.28	.65	T.	.54						1.00							.30		.56	1.00	.30	T.	9.42
Society Hill	do		.50		.32		.15	.13	.42	.20	.15	.62	.08											1.25	.07			.92	.65			5.46
Spartanburg ||	Broad		.10		.03				.55	1.35	.12	.12	T.							.37			.22	.65	.10	.20			.12		.10	4.03
Summerville	Ashley		.17		T.		.96	.36			1.46	.57	.45	T.					.08					.01	T.	.07			.11	.21	T.	4.45
Sumter	Black		.01			.90	.02	.02	1.00	.60		.86	.02													.30	.10		.80	.30	.40	4.73
Trenton	Edisto	.88	.39		.04			.25	.66	.50	.06	.68						.02					.58	.07				.26	.31	.99		5.69
Walterboro	Ashepoo		1.50			.92	.07	.05		.12	.75	.52	.15																			4.08
Winnsboro	Broad						T.	.25	1.20	.30	.70	.40																1.00	1.65			5.50
Winthrop College	Catawba		.72				.05		1.75	.30		1.00													.78		.42	.55				5.57
Yemassee ||	Combahee	.08		.09			1.31	.03	.21	.26	.68	.27	.28												1.04				.15	.30		4.70
Georgia.																																
Abbeville ||	Ocmulgee	1.28	.13	1.92	.38	T.	.34	.12	.02		1.62	.28	.04																	T.	.05	7.26
Adairsville	Coosa					T.	T.		T.										T.			.55	T.			T.				.25		0.80
Albany ||	Flint	.54		.96	.43		.30	.04	.90	.30	.88	.24	.06							T.												4.65
Allapaha ||	Allapaha	.55	1.36	.03	.02		.13	.18	.44		2.53	.41	.20						.05											.44		6.34
Americus ||	Flint	.33		.66	.60	.06	.10	.15	.90	.30	.50	.30												.15								4.05
Athens ||	Oconee	.03	.03	1.05				.22	1.09	.86	.02	.26	.05						.04	.46				.02	.79				T.		.41	5.33
Atlanta	Chattahoochee	T.	.03	.02	.08	.01	.07	.39	T.	.02	.05	.02							.13			.55	1.27	.06				T.		.40		3.10
Augusta	Savannah		.40		.26	.02		.79	.90	.31	.12	.51											1.38					.15		.26		5.10
Bainbridge ||	Flint	.05	T.	.24	.16	.03		.03	.14	1.24	2.30	.14	T.							.02	.04	T.								.13	.12	4.64
Butler ||	do	.92		.56			.47	.65	.37	.49	.30	.58														.40		.35		.20		5.29
Camak ||	Savannah	.25		.20					.20	.76	.70	.61													.25							2.97
Canton ||	Coosa	.11	.26	.07			.18	T.	.17	T.		.06										T.						T.		.24	1.09
Carlton ||	Savannah	.21		.45		.48			.74	.60		.36	.11							.10				.15			.15				.86	4.21
Clayton	do		T.		.25	.55	.95		1.85	.71									.25		.58				T.	.06		.24	T.	1.05		6.49
Columbus ||	Chattahoochee	.29		.68	.11		.93	.23	.08	.41	.65	.21								.20	.63								T.	.30		4.72
Concord	Flint	1.18	.28				.46	1.25	.10	.06	.50	.10							.07				.02										4.02
Covington ||	Ocmulgee	.65					.05	.20		.50	.30	.40								.20				.30						.10	.85	3.55
Dahlonega	Chattahoochee		.55	.03	.05	.03	.10	.30	.02	.23		.06							.22	.05		.07		.15	.02	.65		1.10		.20		3.83
Diamond	Tennessee	T.	1.05	T.	.07	.87	T.	.18	.78	.01										T.	T.	.52	.28					.12		1.49		5.37
Dublin ||	Oconee	2.04	.10	.21	.98		T.	.18	.12	.14	.56	.91	.08											.78					.21	.05	.57	6.93
Eastman ||	Ocmulgee	.44	1.04	.37	.22		.35	.64	.42		.98	.33	.05							.02				.24						.11	.26	5.47
Eatonton	Oconee		.51	.34	.10	.04			.26	.78	.27	.50							.27							.08		.79	.10			4.04
Elberton	Savannah				.66	.05	1.02	T.	.35	.05	.50							.22	.25											.40		3.50
Experiment	Ocmulgee	.20	.45	.24			1.60	.35	.35	.08	.40	.24							.95					.65	.26	.06				.18		6.01
Fort Gaines ||	Chattahoochee	.10		.50	1.05		1.75		.15	.75	.45	.30										.10									.18	5.33
Gainesville ||	do		.05	.98			.30	.12	.87	.86		.21								.22											.25	3.86
Gillsville ||	Savannah							.22	1.10	.35	.40								.20										.25	.15		2.67
Glennville ||	Altamaha			1.04				.09	.01	.01	.46	.32	.16						.01					1.52	.26				.80			4.72
Gore	Coosa		.93	.25		.16		.06	T.	.01	T.								.28	T.	.15	.10				T.			.10		.02	2.06
Granite Hill	Ogeechee		.15		.01		2.36	.31	1.31	.20	.58													22				.60	.40	.30	.05	6.49
Greensboro ||	Oconee	T.		.33		T.		1.98	1.64	.62	.49									.06					.09		.44				.46	6.11
Griffin ||	Omulgee	.16	.45	.95	.04		2.05	.41	.03	.52	.50	.03								1.37				.32	.66						.11	7.60
Harrison	Ogeechee	.35	.21	.52	.04		.72	.60		.40	.60	.35												.82					.70	1.23		6.54
Hartwell	Savannah			.81		.11				22																		1.02		.02		5.44
Hawkinsville ||	Ocmulgee	1.00	.02				.18		.08	.39	.64	.48																		.28		3.07
Highland Dam ||	Chattahoochee	.18	.15	.01	.10		.13	.06	.11	.72	.26	.12							.14	.44										.46	.29	3.17
Jesup ||	Altamaha		2.50						.15	1.00	.80	1.58																.08			.06	6.17
Lisbon	Savannah		.02		.03	.97		.17	.03	1.05	.10	.18						.08											.03	.10	.03	2.79
Lost Mountain	Chattahoochee						1.00	2.00																	.25	.05			.80	.85	.16	5.11
Louisville	Ogeechee		.16		.21	.58	.33	1.54	.01	.95	.80	.14												23				.21		.43		5.59
Lumber City ||	Ocmulgee	1.46		.80	.20		1.07	.66	.02	1.10	.60	.22	.12						.01						1.01							7.21
Lumpkin	Chattahoochee			1.31	.15		.04	.42	.27	.22	.13	.12								.50										.42		3.58
Macon	Ocmulgee	.02	.30			.20		1.88	.16	.27	.20	.33											.02	.05					.11			3.54
Marshallville ||	Flint	.22	.13	.70	T.		T.	.15	.76	.20	.46	.71								T.				T.		T.			.39	.89		4.61
Milledgeville ||	Oconee	.50		.24	T.			.12	3.34	.62	.60	.72												02					.25	T.	T.	6.41
Millen ||	Ogeechee	.80		.10				1.40		.35	.60	.15																	.10	2.20		6.02
Mineral Bluff	Tennessee			.60		.90	.70	1.00		.50																			.40	.40	.30	4.80

TABLE 2.– *Daily precipitation for June, 1913. District No. 2*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Georgia—Contd.																																
Montezuma	Flint	.48	.10	.12	T.			.19	2.34	.19	.35	.55	.03							.25	.41			.07				T.	.26	.12	4.80
Monticello	Ocmulgee	.49		.17	.06		.02	.04	.40	1.55	1.54	.58	.02							.25								.03			5.56
Newnan	Chattahoochee	.08		.08	.14	1.50		.53	.04	.04	.01	T.							T.	.11				.02						.35	2.90
Norcross	....do		.18		.02			.22	.20			.10								.28			.06	.10				.52		.36	2.04
Point Peter	Savannah	1.20						.94		.84		.50							.11				T.						.76		4.35
Poulan	Suwanee	.23	1.48	.15	.25		.53	.05		2.25	.66	.20								.57								.08		1.22	7.67
Putnam	Flint	.35		.65		.20		.25		.25	.08	.34								.30								.20			2.62
Quitman	Suwanee	.37	.23		2.32	.12	.10	.78	.38		2.55	.58	T.														.50		.76		8.69
Ramhurst	Coosa	.02	1.45	.15	.03	1.30	.18	.10	1.25	.08									.20			1.05							.05		5.86
Resaca	....do	T.		.05	T.		.70	.08														1.44									2.27
Rome	....do	1.45		2.20	T.	.05	.66	.06		.05	T.									.28		T.	T.	.05	T.			.09	.35		5.24
St. George	St. Marys	.65	.07	.10			.04			5.25	1.02	.05								.87			.62						.33		8.40
Savannah	Savannah		.54	.02			.11	.11	.04	.36	.33	.62							.02				1.80	.10			T.	T.	.23		4.28
Statesboro	Ogeechee	.55	T.	.15	T.	1.40	.21	.58	T.	.61	.49	.10							T.				.15	.03	1.02		T.	.52	.15		5.96
Talbotton	Chattahoochee			.70	.18	1.39	1.22	.07	.05	.70	.10	.38							.10												4.89
Tallapoosa	Tallapoosa	.26		.51	.23		.77	.49	T.	.26	.16	.06											.37		T.			T.		1.68	4.79
Thomasville	Ocklocknee	.03	.36	.02	2.11	.01	.02	.06		2.40	1.14	.44							.11	.14	T.				.01		T.	T.	.44	.03	.58	7.90
Toccoa	Savannah		.55		.25		.31	.32	.63		.23	.37							T.	.18		T.				.05	.19		.53	.02	3.63
Valdosta	Suwanee	.45	.40		2.25			.50	.90	.10	3.00	1.60																	.90	1.80	11.90
Valona	Coast									1.56	.30												1.10								2.96
Washington	Savannah			.57	.22	.07		.32	1.50	1.62	.30	.95	.10												T.				.15		5.80
Waycross	Satilla	.17		.12	.10	.05		.02		.02	1.23	.69	.19														T.	.78			3.37
Waynesboro	Savannah	.32		T.	.34	.82	.70		.92	T.	.75	1.15	.22											.17		.45		T.	.50		6.34
West Point	Chattahoochee	.13		1.17	T.			.75	.13	.12	.08	.02												.07				.05	.21	.03	2.76
Woodbury	Flint	.11		.83	.35		T.	.31	1.03		.19	.20																	.10		3.12
Florida.																															
Apalachicola	Coast			.48			.80			.40	.10																	1.00			2.78
Arcadia	Peace Creek			.10	.19	1.19	.01				.57	.23	.01										.06	.37			.05	.84	.45	.04	.02	4.13
Archer	Waccasassa						.25			.10	.90	.11								.15							.35		.42	.02	2.30
Avon Park	Kissimmee				.17	.13	.72			.98	1.49	.25											.38	1.15			.87	1.19	.67	.69	.03	8.72
Bartow	Peace Creek				.57		.07	.07			.04	1.89	.06											.41	.02	.11	.02	.72	.32	2.15	.10	6.55
Bassenger	Kissimmee			.13	T.	.16	T.			.75	.70	.16											T.	.70			T.	T.	.20	.75	.20	3.75
Bradentown	Manatee					.60	1.83		T.		T.	.17	T.									.48	.20	.03	.48	.25	.28	.80	2.91	1.60		9.63
Brooksville	Withlacoochee					.13				.77	1.95	.53											.23	.25		1.25	1.27	.18		.06	6.62
Brooksville (2)	....do				T.	T.	.02			.24	3.50	.17											.70	1.70	.08	.04	.25	.71	.10	.80	.23	8.54
Carrabelle	Coast			1.15	.20			.30			.45	.10																1.10			3.30
Cedar Keys	....do						.04	1.05		.19	1.88															14		.09			3.39
Clermont	Lake			.45						.38	.40		T.										T.	T.					.57		1.80
Crescent City	St. Johns			.27	.55		.50			.23	.19	.14																			1.88
De Funiak Springs	Choctawhatchee	T.		.55	.46	.23	T.	.07	.13	1.67		.02							.12	.27				.21		.33		.69	.52	.08	.20	5.55
De Land	St. Johns			.88						.19	.17												.62			.08		.98	.13	.03	.04	3.12
Eustis	Lake			.18			.07			.65	.88															.18	.22	.17				2.35
Federal Point	St. Johns									.30	.81	.29	.04													.15	.61	.02	.68	.76	.25	3.91
Felismere	Sebastian			T.			T.			.59	.84	.20											.02				.44	.03	1.84	.58	.58	5.14
Fenholloway	Fenholloway		4.00				.53				2.50	.20								1.37								.50	1.80	T.		10.90
Fort Lauderdale	New				T.	T.	1.04		.10	T.	T.			.52									.72	.60	.69	T.		.57			.83	5.07
Fort Meade	Peace Creek										1.00	.85											2.15	T.	T.		.80		.65	.32	.15	5.92
Fort Myers	Caloosahatchee			.34	.26	.13	.08	T.	.22	.09	.05												.84	.25	.52	.65	.03		.03	.25	.02	3.76
Fort Pierce	Indian						.25	.08	.04	.64	.31	.03	1.08																		.19	2.62
Gainesville	Lake		.22	.0.	.22	.21	.0.	.25		T.	1.26	.20	.10								.10		.85			.01	.07	.01		.15	.35	4.07
Garniers (near)	Coast			T.	.68	.01			.04	5.60		.02									.08						.10			1.00	.05	7.58
Grasmere	Lake	T.		.58		.16	.04			.80	.12		.01							.13				T.		1.05	.12	.01	.01		3.03
Griffin	New		.23		.35	.70		.13	1.29	.16			.08		.20					2.47	.20		.10	.37	.86	.70	1.35			.04	9.23
Hilliard	Nassau			.95			.17		1.07	.60	3.10	.26								.20							.38		.15	T.	6.88
Homestead	Coast	1.22		.18	.22		1.38	.88	.27					.82	1.06						.71		.18	.32	.19	.17	.96		.03	.02	8.61
Hypoluxo	Lake			.38	.10	.12	.03		1.05	.37	.19	.09														.22		.99	.09		.28	3.91
Inverness	Withlacoochee							.19		1.50																				.55	2.24
Jacksonville	St. Johns	T.	.85	.04			T.		.03	2.36	.24	.07							T.	.15			.04				.58		.19		T.	4.55
Jasper	Suwanee	.50		.70	.10	.08			.20	.35	1.85	.20								.90	.10								1.25		.37	6.60
Johnstown	....do	.06		.90	.10	.72	.14		.11	.07	.42	.07							.13			.28	.75		.11				.46		4.32
Key West	Coast			.01	.33	.09	.73						.08	.15	T.	1.25					T.	T.	.06		.37	.05	.01					3.13
Kissimmee	Kissimmee					.22	.10			.50	.38	.92														T.	.19	T.	.45	.69		3.45
Lake City	Suwanee	.03	T.	.07	.04	T.		.54	.07	.51	1.28	.52	.08							.08	.30					.72		T.	.16	.08	.38	4.86
Live Oak	....do	.57		.14	.12		.14		.25	2.17	1.43	.13								.78	.01	T.		.52			.01		1.89		.51	8.67
Lock No. 1	Newriver C'n'l																															
Lucerne Park	Peace Creek			.90				.18		.78	.42	.22	T.										2.08	.55	T.		.60	.12	2.52	.77	.70	9.84
Macclenny	St. Marys	.30	.85				.76		.07	.94	.76	.25	.03										.14									4.10
Madison	Suwanee	.23		.01	1.25	1.69	.22	.17	.16	T.	1.22	1.03	.01							.02	1.43	.02				T.		.65	.02	.53	.04	8.70
Malabar	Indian					T.	.0.			.45	.17	.35	.05													.01			.30	.50	1.05	2.90
Marianna	Apalachicola			T.	T.	.03			1.60	T.	3.15	.06										.04								.43	.35	5.66
Merritts Island	Indian							T.		.54	.40	.85																	.39	.96	.47	3.61
Miami	Coast				T.	.56			.46	T.	.02	T.	.80	T.	.04					.77	.86	T.	.16	T.	T.	.01			.37	.02		4.07
Miami (2)	....do					.66		.03	.76	.15				.91	.06					1.31	T.		.03		.1[illegible]				.09	.05		4.24
Middleburg	St. Johns		1.85	.29		.08				1.75	.38	.23	.04														.06				.16	4.84
Molino	Escambia				.95		2.80			2.10																			.78	.45		7.08
Mount Pleasant	Apalachicola			2.00	.51		.3[illegible]	.40		2.75	1.25	.3[illegible]								.06	1.45		T.		T.				1.25		.09	10.40
Newport	St. Marks				1.21	.70	.10	.10	.20			1.00									1.30										1.50	1.16	6.77
New Smyrna	Coast		.03			.95		.05			.40	1.00																				2.43
Orange City	St. Johns						T.			.35	.62												.42				.91	.48	.49	T.		3.27
Orlando	....do				T.	T.	.10			.40	.10	T.											.03	T.		T.		T.	1.25	.47		2.35
Pensacola	Coast			.09	.55			.03	.53	1.95	.03	T.							T.	T.				T.				.07	.42	.10	T.	3.77
Pinellas Park	....do					.07	.04					1.07																1.87	T.	.80	.06	3.91
Plant City	Hillsboro					2.05				.27	.1[illegible]	.17											1.00				.65	.24	.40	.29	.19	5.38
Ritta	Caloosahatchee		.53	.11		.73	.24		.23	.16	.01	.61												.22	.3[illegible]	.05	.16	.01		.11	.17	3.70
Rockwell	Withlacoochee						.15		.50	1.60		.10												.70			.73	.20	1.00		1.30	6.28
St. Augustine	Coast									.25	3.60	.70																		.20	4.75
St. Cloud	Kissimmee					T.	.55		T.	T.	.51	.49										T.	.23	T.		T.	2.00	.48	.98	.50	.18	5.62
St. Leo	Withlacoochee									.36	1.84	.10									.29		.31	.71		.02	.32	1.73	.92	.14	.20	6.94
Sand Key	Coast			T.		T.	.57	T.						1.84	T.	.02						T.		.04	T.	.77	T.	.19	T.			3.43
Sanford	St. Johns				.30	.10				2.08	2.80													.35		.06	.14		.67		.01	6.57
Satsuma Heights	....do	T.				T.	.07			.63	.38	.13															.03		.70			1.94
Switzerland	....do				.54					2.00		.86								.22		.07							.06			3.75
Tallahassee	Ocklocknee	.30		.30	.0	1.0		.15	.75		1.75	.50	.02							1.40	.25					.40		.20		.65		7.77
Tampa	Coast						T.	T.	.38		.55	T.	T.						T.			1.61	.50	.02	1.12		.54	1.86	.17		T.	6.75
Tarpon Springs	....do					T.	.02	.47			.14	.02											.08	.27	.50	T.		1.43	.60	.80			4.33
Titusville	Indian			.10			.12			.1[illegible]	1.38	1.19	.01										.03	.01		.01	.01			.02			3.07
Wausau	Choctawhatchee								4.90		.40	.10													.40	.06		T.	.44		T.	6.30
Zona	New			.05		.68	T.	.05	.75	1.00		.06	.63	.10					T.	.08	.25		T.	.30	.27	.07	.12			.20	2.25	6.86

TABLE 2.—*Daily precipitation for June, 1913. District No. 2*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Alabama.																																
Alaga ‖	Chattahoochee	.85		T.	1.72	.35	.33		.26		1.11	.14	.12							.20	.54	T.			.05			T.		T.	1.08	6.70
Andalusia	Escambia				T.			1.90	.20	.90									T.					T.			3.00	.41			6.46
Anniston	Coosa	.02	.24	.31		.01	.22	.17	.66	.03	.05								.04	.18			.03	T.	.12	T.		.06	.02	1.36	.01	3.53
Ashville	do			.20	.25		.64	1.94	.79		.05												1.45								.93	6.25
Auburn	Tallapoosa	.46		.07	.05	2.45			.84	.20	.09	.08																	.07	.72	.08	5.11
Benton ‖	Alabama						1.24			1.20	T.										.12	.24								.15	.40	3.35
Bermuda	Escambia					.12	.18	.24	.09	1.58		T.							T.	T.	T.			T.		T.	T.	.15	.07	.35	T.	2.78
Birmingham	Black Warrior	.01		.26	T.	T.	T.	.88	.12	.13	.02																		.33	.97	.03	2.75
Calera ‖	Coosa	.05			.99			.72	1.08	.06	.02																			.30	.68	3.90
Camp Hill	Tallapoosa			.55	.07			.67			.05																.57		1.00			2.91
Citronelle	Alabama					.38	.67	.81											.21		1.07	.15	.02			.28	.02	T.			.92	4.53
Clanton ‖	Coosa				.42	.28				1.57	.55											.03								1.25	.57	4.67
Cochrane	Tombigbee									.91	.02																			.45		1.38
Cordova	Black Warrior			1.10				1.00		.20																			1.00	1.00		4.30
Dadeville ‖	Tallapoosa	.10		T.	.32	T.			.55	.18	T.	T.																	.30	.40	.10	1.95
Daphne	Coast					.05		.80	1.10	.40										T.	T.			T.			.05		1.10	1.75	5.25
Demopolis ‖	Tombigbee					.12	.22	.05		2.50	2.20	.02																			.18	5.29
Dothan	Coast	T.			.09	.14	.06	T.	.07	1.15	.10	.02								.07							T.	.07		.24	1.93	3.94
Eufaula ‖	Chattahoochee	.15			1.42		.23	T.	.21	.40	.12	.10	.04								T.	T.									.42	3.09
Evergreen ‖	Escambia					.31	.14		.11	.15	.71																		1.46	.77	.80	4.45
Flomaton ‖	do				T.	T.	2.65	.40	.74	.20							.04	T.								T.	T.	1.46	1.87	.06	T.	7.42
Fort Deposit	do			.05	.20	.10	.25	.15	.38	.42	.40	T.									T.	.40									.53	2.88
Gadsden ‖	Coosa	.20		.52			.15	.21	.46		.06											.02	.01	.28							1.05	2.96
Goat Rock	Chattahoochee	.16		1.17	.61	T.		.09	.11	.06	.40	.07								T.	.18								T.	1.14	T.	3.99
Goodwater ‖	Coosa	.18		.04	.28			.56	.29	.80	.25																			.14	.98	3.52
Greensboro ‖	Black Warrior				.11		.06	1.09	1.53	.10	.65																			.06		3.60
Greenville ‖	Escambia						.15		.51		.29										.56									1.11		2.62
Hamilton	Tombigbee			.05			.23	1.14																					.05		.55	2.02
Healing Springs ‖	do					.07	.23	.39			.47	.01								T.						T.		T.		.37	.12	1.66
Livingston ‖	do							.25	.13	.45	.30																				.60	1.73
Lock No. 4	Coosa		.41		.97			.20	.20	.03	.04										.04					.05					.40	2.34
Maple Grove	do		T.	T.		T.	.38	.80	.30	T.									.13		T.	.50			.90		.13	T.	1.15		4.29
Mentone ‖	do							T.	.73		.15									T.			.36					.62			.78	2.64
Milstead ‖	Tallapoosa	.60			.94	.80	.15																							.50	.98	3.97
Mobile	Coast				.08	.02	T.	.54	.88	.09									.07	.03				T.	T.	.01	T.	.14	1.65	.32	.05	3.88
Montgomery	Alabama			.18	.22	.88	.06	T.	.04	.09	T.								.01	.03									.06	.14	T.	1.71
Newbern	Black Warrior				.18		.26		.70	.58																		T.	.02	.11		1.85
Oneonta	do	.72		.12	.10		.53	.02	2.38	.03												.80	.45					T.	.15	.50	5.80
Opelika ‖	Tallapoosa	.17		.47					.62	.87	.06	T.																		.60	T.	2.79
Ozark ‖	Coast																															
Prattville	Alabama	.15			.22	.22		.38	.12	T.									.54									T.	T.			1.63
Pushmataha	Tombigbee						.41	.04	.38	.75	.06															.28			.18	.51			2.61
Robertsdale	Coast				.13	.01	.68	.33	1.89	.45	.02												.23					.07	.75	.15	.38	5.09
Selma ‖	Alabama						.06	.36			.18									T.	.18									.62	.11	1.51
Spring Hill ‖	Coast					.60	.10	.40	.72	.60	.15																			.62	.19	3.38
Talladega	Coosa		.50	2.25	.12	2.50	2.25	1.10	T.	.23																				.57		9.52
Tallassee	Tallapoosa	.29			.10	.06	.03		.09	T.	.10	.02									.09									.73	1.58	3.09
Thomasville ‖	Tombigbee					T.	.09	.61	2.13		.32																T.		T.	.72		3.87
Troy	Escambia	.05		.02		.10	.39	.24	.18	.24	.01									.10	.03					.03			.03	.28		1.70
Tuscaloosa ‖	Black Warrior				.60			.04	.01	.03	.07																		.05	T.	.27	1.02
Tuskegee	Tallapoosa							1.04	.32	.19	T.								.02										.05	T.		1.62
Union Springs ‖	do				.51		1.05	.06	1.01	.31	T.	T.								T.	.35									.38	.14	3.81
Valley Head	Coosa		T.	T.				.70	T.	.31								T.			1.27							.30	T.	.55		3.13
Wetumpka ‖	do				.78			.35		.32	T.																			.28	.37	2.10
Mississippi.																																
Aberdeen ‖	Tombigbee						.37	.94	T.	.10	T.																			.04	.86	2.31
Agr. College	do			.05	.02		.01	.12	.10	.35												.80	.02	.20					.10			1.77
Bay St. Louis	Coast					T.	.01		.13	.05							T.				T.					T.	.05	.08			T.	0.32
Biloxi	do								.25	.27	T.										.37							.12			T.	1.01
Booneville	Tombigbee			.42				.11																							.73	1.26
Brookhaven ‖	Pearl						.04	.26	.14		.04												.24				.02	.14	.31	.48		1.67
Collins	Leaf					.18	1.69	1.04	.93	.82	.10																			1.00	T.	5.76
Columbia ‖	Pearl						2.76	.12	.71	.19	.17										.34								.05	.25		4.59
Columbus ‖	Tombigbee							.17		.06																				T.	1.26	1.49
Crystal Springs ‖	Pearl						.51	.05	.15	.25	.16														.20							1.32
Edinburg	do				.14				.65	.17														T.	T.				.15		T.	1.11
Enterprise ‖	Chickasawhay					.39	.10	.37		.61	.52	.05																	.32		.10	2.46
Fulton	Tombigbee			.22			.04	.28	.02																				.09	.91		1.56
Hattiesburg ‖	Leaf					T.	.53			.36	.60																.16	.28	.18	.90		3.01
Hazlehurst ‖	Pearl						.36	.16	.17	.11	.02														.05				.01			0.88
Hickory ‖	Chickasawhay						.50		.30																					1.21		2.01
Jackson	Pearl					.08			.15	.42										.01					T.			T.		.79		1.45
Lake ‖	do								.05	.10	.08																			.20	.22	0.65
Laurel	Leaf				.35	T.	.53	T.	T.	.48	.20																.03	.05	T.	.46	.01	2.11
Leakesville ‖	Chickasawhay							*	1.84	.20																	.88	.20		1.41		4.53
Louisville	Pearl			.06				.14		.37														.37					.16			1.10
McNeill	do					1.12	.11	.10	T.											T.	.24						T.	.82		.30	.22	2.91
Macon ‖	Tombigbee						T.	.15		.08	T.	T.													.08					T.	.05	0.36
Magnolia	Pearl					.17	1.25	.72		.03										T.	.40	.21	T.			T.	.25	.34	.25		.54	4.16
Meridian	Chickasawhay				.03	.15	.31	T.	2.29	.06	.05													T.	.02				T.	.29		3.20
Merrill ‖	Pascagoula					.05	.53	.60	.80														.23			.17	.11	.34	.10	.90		3.83
Monticello	Pearl					.15	.04	.21	.04	1.22	T.														.18	.17		T.		2.18		4.19
Okolona ‖	Tombigbee							2.10	.10	1.14													.12							.32	.48	4.26
Pascagoula	Coast					.40		.15	.90	.36																				.62		2.43
Pearlington	Pearl					.11	.41	.53	T.	T.												.13						.20			1.15	2.53
Porterville	Tombigbee				.17		.85		.26	.29																		T.		T.	.11	1.68
Shubuta ‖	Chickasawhay						.34	.38		.28	.32																		.03	.28	.02	1.65
Tupelo	Tombigbee			T.			T.	.70																	.01			T.		.70	1.41
Waynesboro ‖	Chickasawhay					.06	.66	1.05		T.	.06	T.								T.							T.	T.	T.	.68	T.	2.51
Woodland	Tombigbee									1.85																					.05	1.90

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for June, 1913. District No. 2, South Atlantic and East Gulf States.*

Date.	Virginia.										North Carolina.															
	Callaville.		Hot Springs.		Lynchburg.		Norfolk.		Richmond.		Charlotte.		Edenton.		Fayetteville.		Hatteras.		Newbern.§§		Raleigh.		Reidsville.		Salisbury.		Wilmington.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	84	52	80	53	82	61	80	62	84	56	86	68	81	63	88	63	78	65	86	61	84	65	84	63	89	66	78	68
2....	83	63	81	60	83	68	83	65	82	64	84	65	85	67	86	68	81	70	88	65	77	68	80	67	85	64	82	66
3....	88	63	78	51	85	63	83	65	84	63	85	65	89	67	90	67	79	69	90	69	87	68	87	63	88	64	84	71
4....	87	67	81	60	87	67	81	68	86	67	86	67	90	65	89	66	80	73	88	69	84	70	89	68	90	63	83	68
5....	81	63	80	50	78	63	71	62	79	62	84	66	90	60	87	64	78	68	82	65	83	66	83	65	90	64	80	68
6....	84	52	78	52	83	58	76	60	83	57	84	68	80	63	86	69	79	67	83	65	84	66	86	64	88	66	80	68
7....	88	68	82	54	87	67	86	68	88	68	84	68	89	70	89	70	81	73	88	67	88	69	88	69	87	60	82	71
8....	72	57	84	52	67	56	70	58	69	55	80	57	79	60	80	59	80	63	81	71	72	58	70	57	76	59	84	60
9....	64	52	72	44	62	50	61	53	63	50	57	51	65	55	59	54	63	57	62	57	58	52	61	48	66	55	60	52
10....	68	45	64	46	67	45	63	56	67	46	63	50	64	55	60	53	65	56	64	52	64	52	68	44	71	44	63	51
11....	67	50	63	35	65	43	65	57	70	49	56	47	70	50	60	51	66	60	64	54	62	51	61	49	65	46	63	52
12....	60	52	72	41	73	52	67	57	74	57	64	49	72	54	57	50	71	58	64	50	59	51	61	49	60	47	58	51
13....	82	55	80	46	85	52	71	60	82	56	84	55	80	70	81	52	73	57	79	54	81	56	85	50	86	51	78	55
14....	90	55	84	54	91	57	88	61	91	65	88	62	90	78	90	60	81	64	90	55	89	64	91	57	89	53	89	60
15....	94	58	86	50	93	59	93	70	92	65	90	65	96	80	95	62	89	67	92	62	93	68	94	62	93	55	93	67
16....	95	60	87	54	94	61	95	70	94	66	94	66	94	80	97	64	83	70	94	63	95	70	97	64	96	58	95	67
17....	95	65	86	59	93	70	90	74	92	72	94	73	95	78	97	73	84	72	95	66	95	68	96	64	96	67	96	68
18....	85	63	84	55	82	65	77	65	81	64	90	67	85	68	89	67	79	71	87	68	85	68	88	61	94	64	88	67
19....	83	67	84	55	81	63	78	64	82	63	89	68	85	65	82	67	77	70	87	67	82	65	86	64	89	69	82	67
20....	95	64	86	60	95	70	90	67	93	67	91	70	93	67	93	68	81	69	91	68	91	69	94	67	95	69	86	68
21....	96	73	88	66	97	73	95	74	97	75	95	71	93	72	94	71	80	72	95	70	95	73	96	65	97	71	90	71
22....	90	66	88	61	85	67	84	71	84	66	91	70	94	74	97	67	82	73	94	71	93	71	91	68	94	68	86	73
23....	87	67	81	63	82	67	84	69	83	67	90	68	92	69	90	68	82	74	92	73	88	68	90	66	90	67	87	73
24....	89	68	79	64	97	68	87	70	86	71	90	68	90	70	89	68	80	73	90	68	88	69	92	66	93	69	85	71
25....	91	69	82	62	89	70	85	72	85	71	94	70	94	75	92	70	82	74	92	70	92	71	95	67	95	69	87	72
26....	90	65	83	62	88	67	82	70	87	69	92	71	98	78	93	69	84	69	90	68	91	70	95	67	93	60	92	73
27....	95	67	86	62	94	69	90	69	94	70	95	68	93	72	93	67	81	69	92	72	92	70	95	68	94	68	90	69
28....	98	71	88	65	95	69	90	73	95	72	95	69	96	69	94	68	88	76	93	70	95	70	95	68	98	70	92	70
29....	87	68	85	60	84	71	81	69	87	68	89	70	86	72	94	70	82	74	87	71	87	70	.....	.....	90	68	85	71
30....	88	57	86	64	86	66	83	68	86	63	90	71	89	65	90	69	82	74	89	70	88	67	90	63	90	68	84	71
Mns..	85.3	61.5	80.6	55.1	84.0	62.6	80.9	65.6	84.0	63.5	85.1	64.8	86.7	67.7	86.0	64.6	79.0	68.2	85.6	65.0	84.1	65.4	85.8[a]	61.8[a]	87.6	62.1	82.7	66.0

Date.	South Carolina.																Georgia.											
	Charleston.		Columbia.		Conway.§§		Ferguson.§§		Georgetown.		Greenville.§§		Newberry.		Society Hill.		Albany.§§		Atlanta.		Augusta.		Dahlonega.		Macon.		Rome.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	80	73	87	71	91	69	86	76	88	75	89	65	91	68	87	66	98	67	86	66	90	70	90	63	92	66	91	63
2....	87	70	90	67	90	66	90	71	87	65	86	66	83	69	91	65	94	68	89	68	94	70	87	62	94	68	95	65
3....	83	70	86	67	94	68	89	73	86	76	87	64	92	62	88	66	85	66	86	65	86	68	87	60	86	66	88	64
4....	86	75	88	68	91	70	92	75	86	74	88	66	93	68	91	61	86	67	86	65	88	68	87	61	88	68	88	65
5....	81	72	86	69	88	66	86	73	86	66	89	62	89	66	85	64	88	61	83	67	87	71	85	63	88	70	89	65
6....	82	72	88	69	85	68	87	72	86	74	82	67	89	69	81	65	91	67	79	67	85	71	85	67	86	70	84	69
7....	82	75	85	69	91	66	86	76	88	68	84	68	87	69	87	66	86	70	80	68	79	70	82	67	86	70	88	69
8....	86	71	86	61	89	67	91	75	88	68	82	67	88	70	86	54	88	69	81	68	86	69	84	64	84	69	86	69
9....	71	58	61	53	60	58	61	59	70	55	58	52	56	54	71	51	78	70	69	53	69	53	75	55	70	54	65	65
10....	60	53	57	52	62	50	58	50	59	51	65	51	59	54	57	50	68	53	56	50	58	52	65	51	58	50	71	56
11....	60	52	55	49	60	56	55	52	58	54	61	50	57	48	56	49	67	52	67	49	59	51	68	49	63	50	74	49
12....	68	49	68	47	70	51	67	54	64	58	72	50	68	45	67	53	75	49	77	47	68	48	76	41	73	46	80	47
13....	82	55	86	54	85	53	84	63	78	58	86	52	89	50	83	57	87	54	84	58	87	53	87	56	86	52	86	50
14....	91	65	91	59	.....	57	90	68	88	62	89	56	96	56	92	55	90	58	89	61	91	58	90	55	91	56	90	52
15....	91	67	95	64	99	.....	94	72	92	64	92	56	96	58	96	65	95	61	92	66	95	60	93	56	95	58	93	54
16....	94	69	97	67	101	59	96	75	94	66	94	60	99	69	99	62	98	65	92	71	96	63	93	61	95	62	95	54
17....	95	71	98	70	101	65	98	77	94	70	97	66	101	60	98	61	100	67	96	69	98	66	96	68	97	64	97	60
18....	86	70	92	70	96	69	91	75	87	70	92	67	95	63	93	73	101	68	96	71	95	73	93	67	95	71	99	63
19....	80	72	91	70	94	66	92	81	81	67	90	63	96	68	90	65	95	73	90	69	92	72	89	62	92	68	93	64
20....	83	74	92	69	92	67	95	80	88	70	91	69	96	68	93	66	95	69	90	70	91	69	92	65	91	70	95	67
21....	86	74	96	71	99	70	96	79	92	72	96	68	98	70	98	65	97	68	93	68	95	71	90	65	96	71	96	69
22....	89	75	96	72	98	68	94	79	91	73	93	61	101	68	99	70	99	68	90	63	97	69	91	61	94	70	95	66
23....	85	75	96	72	94	68	94	80	92	74	91	66	98	71	95	64	98	70	89	71	93	72	91	61	92	72	95	65
24....	86	75	90	69	92	73	96	72	93	73	89	66	94	70	89	60	97	70	92	70	91	70	93	66	92	69	96	65
25....	86	75	92	71	94	68	90	70	93	74	92	65	95	69	92	66	98	71	91	72	91	72	91	65	92	72	98	67
26....	87	76	92	71	95	72	95	75	92	72	92	68	96	71	93	70	101	71	91	72	90	72	95	66	93	73	99	70
27....	89	75	94	71	98	69	94	73	94	69	94	71	97	70	94	68	96	72	94	73	95	74	92	64	95	73	99	69
28....	88	71	95	70	94	69	93	77	93	74	95	69	98	71	92	68	95	73	96	72	95	72	93	62	96	70	99	69
29....	85	72	90	70	92	70	89	76	92	74	93	72	91	70	90	70	94	71	92	67	88	72	92	67	90	73	99	70
30....	85	76	89	71	92	71	90	76	88	72	88	70	89	70	93	69	95	72	88	68	90	73	88	63	91	73	93	69
Mns..	83.1	69.2	87.0	65.8	89.2[a]	65.1[a]	87.3	72.5	85.6	67.9	86.6	63.1	89.0	64.5	87.5	62.8	91.2	66.0	86.1	65.5	87.3	66.4	87.2	61.1	88.0	65.5	90.5	63.0

TABLE 3.—*Maximum and minimum temperatures at selected stations for June, 1913. District No. 2*—Continued.

Date.	Georgia.								Florida.																	
	Savannah.		Thomasville.		Waycross. §§		West Point.§§		Avon Park.		Fort Myers.§§		Jacksonville.		Key West.		Marianna. §§		Miami.		Orange City.		Orlando.		Pensacola.		Tallahassee.§§	
	Max.	Min.	Max.	Min.	Max	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	85	69	91	66	92	67	89	65	95	68	88	72	90	71	87	74	98	67	86	71	95	57	94	72	89	77	91	66
2....	90	67	92	68	97	72	93	68	94	68	90	67	91	70	87	73	99	71	87	70	95	63	92	68	91	77	88	72
3....	85	69	88	67	92	67	87	65	94	68	92	70	88	72	86	74	95	69	85	72	96	64	93	69	86	75	88	68
4....	88	69	89	65	90	67	86	67	91	67	88	69	87	71	85	74	95	68	84	71	98	67	92	71	89	72	87	65
5....	86	73	91	65	91	67	85	69	85	68	89	70	87	72	82	73	94	67	80	73	88	67	87	68	85	72	89	67
6....	83	74	81	70	91	70	85	70	86	72	88	70	86	72	82	71	91	69	84	77	87	68	89	73	84	74	80	67
7....	84	72	86	69	93	70	83	69	88	69	90	69	87	72	84	76	85	69	84	77	89	68	88	70	82	76	86	69
8....	91	71	90	68	96	67	82	69	93	71	90	69	85	70	85	75	88	67	85	74	92	63	92	66	79	71	88	69
9....	75	57	85	60	89	70	70	68	88	69	90	71	88	69	86	77	74	71	84	78	93	69	92	73	81	68	84	70
10....	57	54	60	54	56	55	58	52	85	70	90	70	70	58	85	77	60	57	85	73	85	68	89	72	68	56	58	56
11....	58	53	65	53	62	53	66	51	87	69	90	72	60	57	86	77	65	53	86	77	77	63	84	68	66	55	64	52
12....	70	49	75	49	76	49	77	46	79	66	90	70	73	54	88	75	79	51	85	69	78	58	73	63	78	57	75	51
13....	85	55	86	52	86	52	85	51	84	60	84	64	84	59	86	75	91	52	82	68	88	52	83	55	82	65	84	58
14....	93	64	92	58	92	59	89	53	88	64	86	68	92	64	84	75	94	57	82	73	90	55	90	60	86	67	92	65
15....	94	70	93	61	94	61	92	56	90	68	89	66	94	70	82	70	95	59	85	68	92	58	93	65	83	66	91	65
16....	98	70	96	64	96	65	93	61	92	65	90	66	96	72	85	74	103	61	84	67	94	59	94	63	82	69	94	66
17....	98	73	98	68	99	66	96	62	92	66	92	68	97	74	85	75	99	64	84	69	98	57	95	64	93	69	97	67
18....	88	72	98	67	97	70	98	68	93	66	91	70	90	73	85	75	103	66	86	71	96	66	93	71	96	76	99	71
19....	85	71	93	68	94	70	92	69	92	65	90	68	87	73	86	75	95	71	86	70	94	66	94	69	84	76	92	68
20....	88	71	88	67	93	67	91	68	92	69	89	68	88	72	86	78	94	66	86	70	91	62	93	65	83	77	89	69
21....	92	72	95	65	96	68	89	68	92	66	90	70	87	71	86	76	98	64	85	70	92	62	93	63	84	74	94	68
22....	96	69	93	69	96	71	94	68	94	69	90	70	93	72	86	75	96	67	86	73	95	68	92	72	84	74	92	70
23....	91	71	94	68	95	69	93	69	89	68	83	69	89	71	85	74	99	66	84	76	98	62	92	66	86	76	94	69
24....	89	72	93	69	94	68	94	70	88	70	86	71	88	72	84	76	95	67	83	76	89	66	92	67	85	76	91	70
25....	87	73	91	68	95	67	93	70	91	71	90	74	87	72	86	74	95	67	87	78	86	68	91	71	85	78	90	71
26....	87	74	94	71	94	70	93	72	86	73	87	73	87	73	85	74	96	72	85	78	93	71	94	73	84	77	91	70
27....	91	72	95	71	95	71	96	72	87	69	85	73	91	73	85	78	99	73	84	78	94	71	92	72	84	74	92	71
28....	92	71	88	69	86	68	97	72	81	70	85	70	89	74	86	76	101	72	86	73	89	70	92	70	86	69	91	72
29....	87	71	91	68	86	70	90	71	85	70	84	73	90	71	87	76	95	68	87	73	87	70	87	70	84	70	89	67
30....	87	74	92	72	90	72	90	69	89	71	86	72	88	75	86	77	93	72	87	74	92	70	89	73	83	72	89	72
Mns..	86.0	68.1	88.8	65.0	90.1	65.9	87.5	64.9	89.0	68.2	88.4	69.7	87.0	69.6	85.3	75.0	92.1	65.4	84.8	72.9	91.0	64.3	90.5	68.1	83.7	71.2	87.6	66.7

Date.	Florida.		Alabama.														Mississippi.									
	Tampa.		Anniston.		Bermuda.		Birmingham.		Eufaula.§§		Mobile.		Montgomery.		Newbern.		Tuscaloosa.§§		Bay St. Louis.		Columbus.§§		Hattiesburg.§§		Jackson.		Meridian.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	88	70	89	63	96	62	89	66	91	64	96	76	93	69	96	67	95	66	94	68	96	67	95	66	92	66	92	67
2....	85	71	92	67	98	69	92	71	96	67	92	74	93	73	99	67	98	68	91	71	98	68	96	67	96	66	94	68
3....	89	69	85	66	98	69	88	68	88	65	96	77	94	70	98	69	99	69	93	71	97	69	96	68	94	68	93	69
4....	88	70	87	66	97	69	87	65	84	64	94	72	87	69	95	67	92	67	93	73	94	67	96	68	96	68	88	66
5....	89	70	86	66	94	66	86	68	88	65	92	71	90	70	93	68	93	68	92	73	96	68	96	70	94	69	92	67
6....	90	73	84	69	94	68	86	69	85	66	85	71	86	69	91	70	92	68	88	69	94	70	90	68	92	66	87	69
7....	89	71	83	67	84	66	83	68	85	67	81	72	86	71	91	67	91	69	87	74	91	69	88	67	89	68	85	69
8....	91	72	83	65	80	69	83	68	80	68	75	71	83	69	84	71	88	70	82	74	93	70	88	68	93	68	85	66
9....	87	74	68	58	85	69	71	60	75	66	86	70	76	61	74	67	75	68	86	71	70	67	83	68	75	67	77	63
10....	85	70	66	54	69	58	70	54	61	52	70	60	61	52	70	56	70	56	79	67	75	59	67	63	68	63	63	55
11....	86	66	72	53	71	54	73	51	68	49	69	56	71	55	75	54	76	50	73	59	80	55	67	57	77	51	72	50
12....	73	63	80	47	83	49	79	54	78	45	81	57	80	52	85	52	82	53	79	60	84	49	81	50	81	52	77	54
13....	83	59	86	48	88	52	85	53	82	54	84	59	86	57	89	53	84	54	82	58	89	52	84	51	88	52	85	53
14....	89	66	89	52	94	54	88	58	90	55	89	61	91	59	96	55	90	54	86	56	93	55	91	53	91	56	87	57
15....	91	70	93	54	95	56	91	60	91	58	87	64	95	64	97	58	95	54	87	65	98	57	93	64	93	57	90	59
16....	93	70	93	58	95	60	92	64	93	60	88	69	95	69	98	68	96	55	87	75	99	61	93	67	93	62	91	64
17....	96	71	96	57	99	62	94	63	96	64	94	66	96	72	100	64	97	65	87	71	100	62	95	64	96	63	93	64
18....	91	74	98	63	107	65	97	69	98	2	100	73	98	74	103	65	101	68	99	68	104	64	98	67	98	68	96	67
19....	93	73	93	69	98	67	94	71	93	65	92	74	93	72	100	68	99	69	93	70	102	68	97	70	101	71	94	68
20....	92	70	93	68	91	66	93	72	92	64	86	75	93	70	98	69	98	70	88	73	98	70	90	72	97	69	92	72
21....	91	65	90	67	96	64	93	72	94	63	87	71	92	70	100	68	100	71	87	69	98	70	92	67	92	68	90	68
22....	88	67	90	65	96	63	91	71	94	65	86	72	94	72	99	67	100	70	87	69	98	67	93	65	94	66	91	68
23....	88	69	91	65	96	64	92	71	95	66	86	73	92	71	99	69	100	69	88	70	98	67	95	66	94	69	90	70
24....	88	70	91	68	98	65	92	72	95	67	88	74	95	73	98	71	99	70	87	73	98	69	95	67	94	70	91	70
25....	90	71	92	69	99	66	93	72	93	66	87	75	94	73	101	72	100	70	89	77	98	69	94	65	95	67	90	69
26....	85	72	94	70	99	67	95	74	94	68	89	74	94	75	101	70	100	70	89	75	100	70	95	67	96	70	93	70
27....	88	69	96	69	97	71	95	74	98	68	89	75	97	75	102	71	101	71	84	78	101	74	87	72	92	74	92	72
28....	85	70	97	69	98	69	98	71	98	70	91	71	97	72	102	72	102	72	88	77	101	73	93	67	97	72	96	72
29....	85	72	98	68	93	69	96	69	95	69	88	70	92	70	100	70	103	70	86	69	99	69	94	65	96	67	88	70
30....	86	75	90	67	96	68	90	68	86	68	91	72	91	69	98	70	97	68	87	73	93	69	94	67	95	73	91	72
Mns..	88.1	69.7	88.2	62.9	92.8	63.9	88.5	66.2	88.5	63.0	87.3	69.8	89.6	67.9	94.4	65.8	93.8	65.4	87.3	69.9	94.5	65.5	90.5	64.9	91.6	65.5	88.2	65.6

a, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 3, OHIO VALLEY.

PROF. FERDINAND J. WALZ, District Editor.

GENERAL SUMMARY.

The principal features of weather conditions obtaining during the month of June, 1913, in the Ohio Valley were the remarkable extremes in temperature, the extensive deficiency in rainfall, and the unusually large percentage of sunshine.

From the 8th to the 11th inclusive there occurred some of the coldest weather ever experienced in this district in June. Freezing temperatures were registered over large areas, frost occurred in many localities, and temperatures of between 32° and 45° were reported from nearly all sections as far south as western North Carolina, and Tennessee. June low temperature records were broken or equaled at many stations throughout the district.

This cool wave was immediately followed by an intense heat wave which continued through practically the entire last half of the month, causing probably greater suffering, more prostrations and deaths than any previous heat wave of record in this district occurring so early as June. At many stations in various parts of the district maximum temperatures registered 100° or more on as many as 10 of the 15 days of the last half of the month. Thirty-six prostrations and 12 deaths were reported from Columbus, Ohio, alone and conditions were almost as severe in other cities in the central and western portions of the district.

There were only two periods in which precipitation was fairly general. Clear weather, bright sunshine, and blighting winds largely obtained. Serious droughty conditions prevailed over much of the western and northern portions of the district.

The fields of standing grain became so dry in parts of Indiana that they were set on fire by sparks from the locomotives and some fields completely destroyed. Fire patrols had to be established near Columbus, Ind., to guard against this danger. There were numerous local thunderstorms, some of which caused considerable damage from accompanying wind squalls, lightning, and hail.

Shallow troughs of low pressure overspread the Ohio Valley about the 1st, 3d, 6th–7th, and the 21st–23d, attended by showers and local thunderstorms. The prominent pressure feature, however, was the high pressure area of remarkable strength for this season of the year, which appeared over the northwestern sections about the 7th. Drifting slowly eastward with main crest about the Great Lakes, it overspread the central States from the 8th to the 11th, causing remarkably cool weather. During the 11th and the several succeeding days this "high" slowly settled down over the southern and southeastern States, and, sending northward southerly winds, finally became the cause of the intense heat wave. The pressure continued relatively high over the southeastern States during practically all the last half of the month.

The following table summarizes the chief features of meteorological interest for the several sections of the district:

Portions of States included in the Ohio River Basin.	Temperature.				Precipitation.						
	Average.	Departure.	Highest.	Lowest.	Average.	Departure.	Greatest monthly.	Least monthly.	Greatest in 24 hours.	Average number of days.	Average snowfall.
New York	63.0	+0.4	93	27	2.51	−1.46	2.81	2.16	0.70	8	0
Pennsylvania	67.5	+0.2	97	20	2.79	−1.50	7.61	0.83	2.25	7	0
Maryland	64.6	+0.8	90	27	3.96	−0.63	4.21	3.58	1.00	10	0
West Virginia	69.7	+0.5	99	30	3.40	−1.34	6.55	0.86	2.38	9	0
Ohio	70.3	+0.7	105	29	1.98	−2.01	4.94	0.55	2.00	6	0
Indiana	73.8	+2.3	105	34	2.30	−1.87	7.17	0.58	2.35	7	0
Illinois	76.2	+3.3	106	38	1.88	−1.78	3.28	0.62	1.80	5	0
Kentucky	75.0	+1.9	107	38	2.87	−1.44	5.78	0.40	2.40	7	0
Tennessee	75.2	+1.4	104	36	2.72	−1.92	5.99	0.36	2.92	6	0
Alabama	76.2	−0.2	101	44	3.85	−0.70	6.82	1.98	3.53	8	0
Georgia	71.6	−0.1	95	40	5.08	−0.80	5.37	4.80	1.49	9	0
North Carolina	68.0	+0.1	96	34	4.59	−0.24	10.43	1.26	3.20	10	0
Virginia	67.2	−0.8	92	28	3.57	−1.32	6.23	2.22	1.25	9	0

TEMPERATURE.

Unseasonably high temperature obtained during the first two or three days and again on the 6th, but a remarkably cool wave for June set in on the 7th and continued through the 12th. During this period, especially on the 9th and 10th, freezing temperatures were registered at many places in western Pennsylvania, western Maryland, southwestern Virginia, and Ohio, while minimum temperatures between 34° and 45° were registered in Indiana and western North Carolina, and 36° to 45° in Tennessee, Kentucky, and Illinois. This was one of the longest periods of damaging cool weather ever experienced in the Ohio Valley as late as June. Much damage to garden truck and fruit was reported from most of the district north of Tennessee. In West Virginia the minimum of 29° was the lowest on record for that State in June. Freezing temperatures were reported from all counties of western Pennsylvania. In western Virginia and Ohio minimum temperatures were below freezing at some stations and the coldest weather for June ever experienced in those States occurred. In Indiana a minimum of 34° was registered at Paoli on the 11th, which is as low a temperature as has ever been recorded in southern Indiana in June, and frost occurred quite generally over the State, damaging vegetation to a considerable extent in many localities. In Illinois and Kentucky the minimum temperatures approached the lowest record for any past June. In Alabama, where minimum temperatures were from 44° to 50°, lower temperatures have occurred previously in June, but much earlier in the month. In North Carolina minimum temperatures of

near freezing were registered at stations of high elevation, and while light frost occurred it was not damaging, as it was cloudy during nearly the whole period of cold weather. From all counties in southwestern Virginia minimum temperatures below 40° were reported. At Mountain Lake, Va., the temperature reached 28° on the morning of the 10th, and outside water pipes froze. This is the lowest temperature known to have occurred in Virginia in June. At Wytheville, Va., a minimum of 36° was reached on the morning of the 11th, the coldest ever experienced at that station in June. Light frost occurred there on mornings of the 10th and 11th, which nipped tender vegetables and caused thin ice to form in exposed places. It is not determinable to what extent fruit was damaged in this locality by these frosts and freezes, as the fruit crop had already been damaged by previous freezes; but the dropping of young fruit then on the trees was certainly increased, and practically no apples, pears, peaches, plums, or cherries remained on the trees in the orchards.

There was a rapid warming up about the 15th, and during practically the entire last half of the month there was experienced some of the hottest weather on record for June and close to the record of any month during the past 25 years. The heat came in two distinct waves, the first extending from the 14th to the 20th and the second from the 24th to the 30th, the latter being severe on the 28th and 29th. Temperatures of 100° or over were registered almost daily in each of the periods in Illinois, Indiana, Kentucky, and Tennessee, and between 90° and 100° over the rest of the district. The change to cooler which broke the hot wave over the northern and central sections on the 22d and 23d, and which attended a general rainstorm, did not extend farther south than Kentucky, and over the more southerly sections the heat was continuous, but relatively not so severe as in the more northerly sections. There was much suffering, and many prostrations and deaths from the heat. The suffering was intensified on account of the stillness of the air during these periods, there being very little wind movement, and the nights were especially trying on that account. Maximum temperatures registered 100° or more on 10 out of the last 15 days of the month at many stations in Indiana, Illinois, Kentucky, and Tennessee. A maximum temperature of 107° was reached at Earlington, Ky., on the 30th, which is the highest recorded in the district, and is also the record high temperature for the State of Kentucky for June.

PRECIPITATION.

Rainfall was decidedly deficient in nearly all parts of the district. In only a few limited areas was the total amount for the month as much as 4 inches. In most sections it was less than 3 inches, while over large areas it was less than 2 inches, and in many localities less than 1 inch. Much of Ohio, Indiana, Illinois, and the western portions of Kentucky and Tennessee suffered severely from droughty conditions. The drought situation over the southern portions of Illinois and Indiana and the western portions of Kentucky and Tennessee was augmented by reason of the shortage of precipitation during the entire month of May.

Moderate rains occurred in portions of Kentucky and Tennessee and in southern Indiana on the 1st and 2d, and there were fairly good and general rains in West Virginia, southern Indiana, and over Kentucky, Tennessee, and sections to the southward in the period 7th–8th. But over the rest of the district there was no rain of consequence until the 20th or 21st. This long period without appreciable rain was particularly marked in Illinois, Ohio, and the western portions of New York, Pennsylvania, Maryland, and West Virginia. Rains occurred quite generally and in generous amounts in the period 20th–25th over sections from Kentucky northward and over northeastern sections, temporarily breaking the drought, but there was little rain of consequence over Tennessee and the southern portions of the district after the 8th. The showers of the latter part of the month revived vegetation and put the soil in fair condition in regions visited by them, but they affected the general water supply but little, and at the end of the month rain was greatly needed in all parts of the district, while in many sections drought conditions had become extremely critical. The total precipitation for the portion of Ohio in this district was the least for the last 50 years for June. In Indiana it was the driest June of record with the exception of 1908 and 1910. In the State of Kentucky there was suffering from lack of moisture over practically the whole State, although in some sections the total amount was near the normal. This total resulted from heavy local showers at wide intervals while between the rains there was excessive sunshine with drying winds. The average rainfall for the State, 2.87 inches, is the smallest for June in the past 25 years except in 1894 and 1899. Conditions similar to those in Kentucky also obtained largely in Tennessee.

The rainfall was generally local in character and accompanied thunderstorms. It was therefore unequally distributed both as to time and place, the larger amounts occurring in widely separated localities, or at most in limited areas.

MISCELLANEOUS.

June 1.—Thundersqualls did some damage in Franklin, Marion, Hamilton, and Warren Counties, Ohio. At Columbus, Ohio, the wind reached a velocity of 60 miles per hour. Also there was considerable damage done at Maysville, Lexington, Louisville, and Shelbyville, Ky., by wind, lightning, or hail which attended thunderstorms in those localities. The country home of Lawrence Jones, near Louisville, Ky., was struck by lightning, set on fire, and completely consumed. The house was valued at $30,000 and the furniture, which included many curios and valuable works of art, at $50,000. Two valuable cows were killed by lightning in Scott County, Ky.

June 2.—A barn near Fayetteville, Tenn., was struck by lightning, a mare and colt killed, and the barn partly destroyed.

June 3.—A man was killed by lightning near Newcastle, Ind., and considerable damage was done in Henry and adjoining counties by lightning.

June 6.—A school-teacher was killed by lightning near Barboursville, Ky. He had taken refuge under a tree. A stock barn was partly destroyed by lightning and some damage done to crops by hail in Todd County, Ky.

June 15.—Hail fell to a depth of an inch or more at Hoopeston, Ill.

June 16.—A young man was killed and 3 people badly injured by lightning in Marion County, Ohio; also considerable damage was done locally by winds and lightning in Guernsey, Muskingum, and Tuscarawas Counties, Ohio.

June 25.—At Bellefonte, Pa., lightning struck a steel rail, followed a track into a coal mine and killed 1 man and severely injured 3 others. A young man was killed near Warren, Pa., while working in the field. Hail did considerable damage in some of the southwestern counties of Pennsylvania.

June 27.—Lightning struck a team of mules near Metropolis, Ill., killing both animals. A barn near by was also struck by lightning and burned.

June 28.—A negro boy was killed by lightning at Joppa, Ill. Mrs. Howard, near Sparta, Tenn., was struck by lightning and instantly killed.

Mr. L. W. Gordon, cooperative observer at Equality, Ill., gives the following description of peculiar phenomena in sky coloring observed by him and others at Equality on the evening of June 17, 1913.

About 7 p. m. my attention was attracted by the rich and profuse coloring in the western sky. The color phenomenon stretching from the horizon on the left through the zenith above the sun to the horizon on the right, was composed of five separate and distinct groups of colors, each group being made up of divergent bands of the prismatic colors, the whole forming a great fan-shaped blaze of prismatic coloring diverging from the sun then near the horizon. The blue, yellow, and red were clearly marked, but the violet and other intervening colors were not so well defined. The segment of the sky near the horizon was very black and there were two clearly defined, but narrow, black stripes above the darker sky; also a marked development of cirro-cumulus clouds occurred toward the zenith of the phenomenon and over the rest of the sky. The phenomenon lasted with varying intensity for about 30 minutes.

At 9 p. m. I noticed two beams of silvery light crossing the moon, one parallel and one perpendicular to the horizon, the effect being that of a distinct silvery cross with the moon at the center, the moon being about 10° above the horizon. Both phenomena were of singular beauty.

TABLE 1.—*Climatological data for June, 1913. District No. 3, Ohio Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
New York.																				
Allegany	Cattaraugus	1,441	7	63.0	.....	91	30	28	10	44	2.16	.....	0.57	0	8	14	9	7	nw.	Charles E. Whitney.
Bolivar	Allegany	1,800	19	62.9	+ 0.4	93	30	27	9†	49	2.81	− 1.46	0.60	0	8	18	7	5	nw.	Charles F. Hoffman.
Olean	Cattaraugus	1,402	5	.....	.....	.....	.....	.....	.....	.....	2.57	.....	0.70	0	8	.....	.....	.....	.....	John W. Alles.
Pennsylvania.																				
Aleppo	Green	1,135	12	67.8	+ 0.6	94	30	23	10	40	2.92	− 0.97	1.51	0	6	23	4	3	sw.	J. S. Hinerman.
Baldwin	Butler	1,404	7	66.8	.....	90	16†	34	10	44	2.21	.....	1.25	0	4	23	3	4	w.	S. H. Templeton.
Beaver Dam	Beaver	674	19	.....	.....	.....	.....	.....	.....	.....	0.83	− 4.01	0.49	0	3	16	4	10	ne.	U. S. Engineer.
Brookville	Jefferson	1,173	22	66.0	.....	95	16	28	9†	53	3.62	− 0.56	1.03	0	8	.....	.....	.....	w.	H. C. Bartholomew.
California	Washington	770	9	69.8	.....	95	30	35	10	49	1.80	.....	1.26	0	5	8	15	7	w.	Prof. B. U. P. Cobaugh.
Clarion	Clarion	1,078	28	.....	.....	.....	.....	.....	.....	.....	7.61	+ 2.79	2.25	0	7	23	1	6	w.	P. O. Miller.
Claysville	Washington	1,127	9	69.3	.....	96	30	31	10	46	1.10	.....	0.48	0	5	21	6	3	w.	E. T. Buchanan.
Confluence	Somerset	1,352	29	.....	.....	.....	.....	.....	.....	.....	3.11	− 1.13	0.68	0	8	13	8	9	.....	Grant Pyle.
Franklin	Venango	955	38	66.9	+ 0.8	95	16	34	9	42	4.33	− 0.43	1.53	0	10	24	1	5	w.	F. E. Dixon.
Freeport	Armstrong	772	40	.....	.....	.....	.....	.....	.....	.....	2.62	− 1.62	0.75	0	7	16	4	10	.....	Mrs. Anna R. Burtner.
Greensboro	Green	768	24	.....	.....	.....	.....	.....	.....	.....	2.80	− 2.20	0.80	0	9	18	6	6	sw.	James G. Cramer.
Greensburg	Westmoreland	1,100	6	68.0	.....	92	16†	35	10	45	3.11	.....	1.35	0	8	20	9	1	sw.	Westmoreland Water Co.
Greenville	Mercer	950	17	65.6	− 1.1	95	16	29	10	46	2.80	− 1.47	1.19	0	7	25	5	0	w.	A. M. Orr.
Indiana	Indiana	1,350	16	69.0	+ 1.9	97	30	32	10	45	2.22	− 2.54	0.84	0	8	22	3	5	n.	R. W. Wehrle.
Johnstown	Cambria	1,184	25	70.0	+ 0.5	96	30	34	10	42	2.66	− 2.46	0.81	0	11	19	8	3	s.	E. C. Lorentz.
Lock No. 4	Washington	718	27	.....	.....	.....	.....	.....	.....	.....	2.09	− 1.93	0.86	0	6	18	4	8	s.	R. T. McGowan.
Lycippus	Westmoreland	1,420	21	68.1	− 0.1	90	19	36	10	45	1.52	− 2.91	0.37	0	5	.....	.....	.....	.....	Murray Forbes.
Mosgrove	Armstrong	775	2	.....	.....	.....	.....	.....	.....	.....	1.95	.....	1.15	0	7	24	0	6	sw.	C. J. Moore.
Pittsburgh	Allegheny	842	43	70.5	− 0.6	93	30	43	10	32	1.04	− 2.85	0.59	0	5	17	9	4	nw.	U. S. Weather Bureau.
Ridgway	Elk	.....	0	65.2	.....	92	16†	28	10	50	3.43	.....	1.72	0	7	.....	.....	.....	.....	F. J. Eagen.
Saegerstown	Crawford	1,116	22	63.3	− 2.0	90	30	30	9†	43	3.57	− 0.86	0.74	0	10	11	14	5	nw.	J. G. Apple.
Sharon	Mercer	940	2	67.2	.....	94	16†	32	9†	43	2.46	.....	1.40	0	6	24	1	5	sw.	Norman S. Powell.
Somerset	Somerset	2,250	57	66.4	+ 0.8	91	16	20	10	49	2.86	− 2.09	0.68	0	9	16	7	7	sw.	W. M. Schrock.
Uniontown	Fayette	999	25	69.6	− 0.7	92	16†	40	10	42	4.14	− 0.61	1.37	0	7	4	21	5	sw.	Wm. Hunt.
Warren	Warren	1,137	24	66.4	+ 1.6	96	30	31	9†	52	3.07	− 1.16	1.00	0	7	20	0	10	sw.	Anna Simpson.
Maryland.																				
Deer Park	Garrett	2,457	20	64.0	+ 0.8	88	18†	27	10	46	4.21	− 0.91	0.89	0	10	.....	.....	.....	.....	S. P. Specht.
Grantsville	....do	2,351	20	65.8	+ 1.7	90	30	29	10	42	3.58	− 0.49	0.72	0	8	16	9	5	.....	J. S. Miller.
Oakland	....do	2,461	14	63.9	− 0.2	88	30	29	10	42	4.10	− 0.49	1.00	0	11	17	11	2	w.	R. E. Weber.
West Virginia.																				
Bancroft	Putnam	574	10	.....	.....	.....	.....	42	10†	....	3.38	− 1.45	0.94	0	8	19	3	8	ne.	R. E. Dent.
Beckley	Raleigh	2,440	14	64.3[e]	− 3.1	91	27	34[e]	10†	41[e]	6.03	+ 2.01	2.38	0	6	17	3	10	w.	John A. Ewart.
Bens Run	Pleasants	622	12	71.0	+ 0.7	94	28†	42	10	43	2.49	− 2.20	0.93	0	7	22	7	1	.....	J. D. Riggs.
Bluefield	Mercer	2,563	19	68.4[b]	− 0.3	88	20†	37	10†	44[b]	5.71	+ 0.35	.....	0	....	13[b]	7[b]	2[b]	.....	Norfolk & Western Ry.
Buckhannon	Upshur	1,472	23	68.4	− 0.5	92	28	34	11	44	2.60	− 2.47	0.90	0	6	24	3	3	.....	H. A. Darnall.
Cairo	Ritchie	667	11	70.9	+ 0.6	95	28†	38	11	41	4.03	− 0.69	0.81	0	11	6	22	2	s.	Van A. Zevely.
Central Station	Doddridge	900	11	69.4	− 0.3	95	30	36	10	42	2.23	− 2.05	0.68	0	10	15	11	4	sw.	G. W. Sherwood.
Charleston	Kanawha	598	28	73.4	+ 1.1	94	20†	43	10†	33	2.86	− 1.83	1.32	0	8	8	10	2	w.	R. C. Hewes.
Creston	Wirt	612	12	70.4	− 0.1	94	20	39	11	39	4.10	− 0.31	2.06	0	9	19	5	6	sw.	J. M. Reed.
Cuba	Jackson	544	13	70.5	+ 1.8	96	30	38	11	41	2.09	− 2.05	0.58	0	9	14	15	1	w.	C. T. Perry.
Doane	Wayne	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	L. A. Smith.
Elkhorn	McDowell	1,933	21	68.0	− 0.5	90	30	38	11	35	6.20	+ 0.87	2.05	0	12	24	3	3	w.	J. J. Lincoln.
Elkins	Randolph	1,940	14	67.4	+ 0.8	92	30	34	10	40	2.83	− 2.21	1.22	0	9	10	17	3	nw.	U. S. Weather Bureau.
Fairmont	Marion	879	21	71.6	.....	96	27†	39	10	45	4.25	− 0.45	1.35	0	10	26	1	3	w.	F. P. Hall.
Glenville	Gilmer	738	24	72.7	+ 2.2	97	28	38	10	46	4.28	− 0.26	1.80	0	6	19	10	1	w.	Joe N. Craddock.
Grafton	Taylor	985	21	71.2	+ 2.1	97	21	36	10	42	3.37	− 1.30	1.18	0	9	22	3	5	w.	Joseph Gerken.
Green Sulphur Springs	Summers	1,600	18	68.8	+ 0.3	92	29	35	11	41	2.52	− 1.81	0.90	0	11	9	20	1	w.	Arthur George.
Hinton	....do	1,400	24	72.4	+ 1.8	95	20†	42	11	39	2.58	− 1.74	0.82	0	8	14	2	14	n.	J. B. Lavender, C. E.
Holcomb	Nicholas	.....	1	66.4[a]	.....	89[a]	20†	33	10†	41[a]	3.74	.....	.....	0	9	19	3	8	.....	R. E. Ferguson.
Huntington	Cabell	5.0	18	73.7	+ 1.2	96	28	45	11	38	2.90	− 1.48	1.18	0	7	21	4	5	w.	L. H. Hutchinson.
Lewisburg	Greenbrier	2,200	13	68.2	+ 0.8	89	20†	36	11	39	3.77	− 0.44	1.06	0	11	27	1	2	nw.	Geo. T. Argabrite.
Logan	Logan	665	11	74.9	+ 2.9	97	29	45	10	37	2.47	− 3.04	0.62	0	8	19	7	4	e.	Dr. J. E. McDonald.
Lost Creek	Harrison	1,033	17	67.3	− 0.6	92	30	33	10†	46	1.13	− 3.15	0.31	0	6	23	2	5	w.	Allen Smith.
Madison	Boone	704	8	72.8[c]	.....	98[f]	30	43[g]	10†	42[g]	1.83	.....	1.00	0	6	13[f]	10[f]	1[f]	.....	S. E. Bradley.
Mannington	Marion	967	11	68.5	+ 0.1	92	27†	35	10	44	2.78	− 2.12	1.14	0	8	24	3	3	w.	Jas. A. Morgan.
Marlinton	Pocahontas	2,169	17	64.6[a]	− 1.4	86	28†	30	10	45	2.85[a]	− 2.09	1.10	0	7	16[a]	10[a]	3[a]	.....	C. J. McCarty.
Morgantown	Monongalia	1,250	39	70.4[e]	+ 1.5	94	30	40	10†	42	2.04[e]	− 2.66	0.49	0	....	21[e]	5[e]	1[e]	n.	Horace Atwood.
Moundsville	Marshall	640	11	71.0	+ 1.4	98	30	36	10	43	2.82	− 0.73	0.93	0	9	24	3	3	sw.	M. L. Brown.
New Cumberland	Hancock	987	14	68.9	+ 0.7	98	30	33	10	43	3.30	− 1.42	1.70	0	4	20	6	4	n.	Frank S. Evans.
New Martinsville	Wetzel	634	20	72.3	+ 0.8	95	16†	41	10	43	2.26	− 1.65	0.83	0	6	21	7	2	s.	Wm. Ankrom.
Nuttallburg	Fayette	2,252	21	65.4[i]	− 2.5	87	29	37	.....	....	4.87	+ 0.48	1.50	0	7	13[i]	5[i]	3[i]	.....	Miss Donna Tully.
Parkersburg	Wood	638	25	72.4	+ 1.0	97	30	44	11	36	2.96	− 1.69	0.91	0	10	20	6	4	n.	U. S. Weather Bureau.
Parsons	Tucker	1,662	14	66.7	+ 0.3	91	30	33	10†	43	4.18	− 1.73	1.00	0	8	18	8	4	.....	J. W. Swisher.
Philippi	Barbour	1,192	21	69.6	+ 1.4	93	27†	33	10	42	3.54	− 1.8	1.25	0	12	17	9	4	w.	J. D. Dadisman.
Pickens	Randolph	2,785	23	67.6	+ 2.4	96	15	35	10†	47	4.20	− 0.23	.....	0	11	21	7	2	w.	Dr. J. L. Cunningham.
Point Pleasant	Mason	553	23	73.4	+ 0.5	99	28†	40	10	41	1.72	− 2.94	0.58	0	10	16	6	8	se.	W. D. Holmes.
Powellton	Fayette	904	16	70.6[e]	+ 0.1	91	21†	41	10†	32[e]	6.43	+ 1.66	1.91	0	....	12[e]	14[e]	1[e]	.....	Morris Hansford.
Princeton	Mercer	2,469	13	64.2	− 0.7	82	20	34	11	32	6.55	− 0.88	2.25	0	10	15	13	2	w.	H. Scott.
Robertsburg	Putnam	574	13	71.8	+ 0.6	98	30	40	10†	40	2.46	− 1.64	0.70	0	8	23	0	7	.....	E. P. Turley.
Ryan	Roane	639	10	69.9	+ 1.1	96	28	35	10	43	2.99	− 1.65	1.58	0	9	12	14	4	.....	Wm. E. Ryan.
Smithfield	Wetzel	919	9	68.6	.....	93	27	33	9	50	4.08	− 0.44	0.93	0	10	17	7	6	w.	G. M. Whisler.
Spencer	Roane	710	15	69.4	.....	95	20†	36	10	47	2.83	− 1.72	1.44	0	5	12	14	4	.....	A. M. McKown.
Sutton	Braxton	839	10	73.3	.....	96	30	40	10†	41	2.89	− 3.29	0.72	0	7	18	5	7	.....	Ben Gillespie.
Terra Alta	Preston	3,207	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. B. Elliott.
Union	Monroe	.....	9	66.0[a]	− 0.4	95	21	32[a]	11	38[a]	6.03	+ 1.76	2.02	0	9	.....	.....	.....	.....	Shelton Clark.
Valley Fork	Clay	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss Blanche Pierson.
Webster Springs	Webster	1,500	....	68.2	.....	91	30	36	10†	41	4.58	.....	1.77	0	11	14	12	4	w.	D. H. Hamrick.
Wellsburg	Brooke	1,225	19	69.3	+ 1.9	91	15†	38	9	32	0.86	− 3.80	0.36	0	6	21	8	1	n.	C. P. Waugh.
Weston	Lewis	824	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss C. M. Davis.
Wheeling	Ohio	645	29	71.5	.....	98	27	39	10	49	2.44	− 1.46	0.70	0	8	26	0	4	w.	Miss M. B. Forsyth.
Williamson	Mingo	660	12	71.6	− 0.6	92	28†	43	10	37	2.26	− 3.11	1.54	0	8	22	5	3	w.	J. F. Keyser.

TABLE 1.—*Climatological data for June, 1913. District No. 3*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Ohio.																				
Amesville	Athens	630	9	70.8	.....	99	28†	36	11	46	1.72	.....	0.95	0	6	22	5	3	.....	F. W. Gibson.
Ashland	Ashland	1,079	13	69.3	− 0.9	100	30	34	10	41	1.67	− 2.03	0.80	0	5	16	6	8	w.	S. W. Brandt.
Bangorville	Richland	1,380	26	69.8	+ 1.3	98	30	38	9†	36	2.25	− 2.00	1.05	0	8	18	11	1	sw.	S. M. Painter.
Bellefontaine	Logan	1,276	34	69.2	+ 0.5	98	30	39	9†	40	1.56	− 2.57	0.66	0	7	21	6	3	sw.	Cory L. Lane.
Bladensburg	Knox	1,100	20	68.4[e]	+ 0.7	94	30	34	10	43	1.48	− 1.38	0.68	0	5	.....	.....	.....	.....	Miss Mary Elliot.
Brilliant	Jefferson	700	....	70.6	.....	99	30	37	10	40	1.20	.....	0.65	0	3	23	3	4	s.	Mrs. Mary K. Pennell.
Cadiz	Harrison	1,245	9	71.4	.....	97	30	39	9†	38	1.92	.....	0.85	0	7	21	8	1	.....	Harry B. McConnell.
Cambridge	Guernsey	803	21	68.6	+ 0.5	94	30	36	10	42	3.29	− 0.49	0.90	0	8	16	13	1	.....	Samuel Mehaffey.
Camp Dennison	Hamilton	570	20	72.6	+ 0.6	100	30	41	9†	44	1.50	− 1.84	1.07	0	7	23	5	2	sw.	Henry F. Pinkvoss.
Canal Dover	Tuscarawas	884	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ed. S. Slingluff.
Canton	Stark	1,089	30	68.3	− 0.2	98	30	35	10	42	0.55	− 3.60	0.20	0	5	25	2	3	sw.	Carl H. Meyer.
Cardington	Morrow	1,010	18	69.6	+ 2.5	98	30	36	9	42	3.52	− 0.38	1.85	0	5	21	0	9	nw.	J. W. Shaw.
Chillicothe	Ross	630	10	.....	.....	.....	.....	.....	.....	.....	1.54	.....	0.64	0	3	.....	.....	.....	.....	Marion Mackey.
Cincinnati	Hamilton	628	42	74.8	+ 1.1	98	28	43	9	33	2.29	− 1.69	0.93	0	8	15	12	3	sw.	U. S. Weather Bureau.
Circleville	Pickaway	694	25	71.8	+ 1.1	100	30	36	9	48	4.15	+ 0.10	1.45	0	11	20	4	6	s.	Dr. H. R. Clarke.
Clarington	Monroe	600	10	69.0	+ 0.1	95	27†	36	10	43	2.15	− 2.13	1.10	0	6	20	4	6	sw.	Col. S. Tschappat.
Columbus	Franklin	918	35	71.8	+ 0.8	98	30	39	9	32	1.56	− 1.93	0.56	0	8	22	6	2	ne.	U. S. Weather Bureau.
Coshocton	Coshocton	770	4	.....	.....	.....	.....	.....	.....	.....	1.99	.....	0.45	0	8	.....	.....	.....	.....	Mrs. Ada Jeffries.
Dayton (1)	Montgomery	899	2	72.5	+ 0.4	98	30	40	9	32	2.67	− 1.29	0.85	0	10	19	6	5	ne.	U. S. Weather Bureau.
Dayton (2)	....do	790	32	72.2	+ 0.2	99	30	37	10	42	2.75	− 1.15	0.85	0	8	.....	.....	.....	.....	Mrs. Edith E. L. Boyer.
Delaware	Delaware	896	16	70.0	+ 1.1	101	30	36	10	44	1.70	− 2.00	0.42	0	7	16	13	1	w.	DeWitt H. Leas.
Demot	Belmont	1,325	25	72.4	+ 2.7	97	30	36	10	32	2.31	− 2.01	0.90	0	8	23	5	2	s.	J. T. Dysart.
Dennison	Tuscarawas	846	3	70.9	.....	101	30	35	10	47	1.10	.....	0.59	0	4	24	5	1	s.	Water Supply Co.
Frankfort	Ross	745	21	71.0	+ 0.2	98	16	36[a]	10	47[a]	1.77	− 1.53	1.65	0	2	21	4	5	s.	O. A. Cory.
Gallipolis	Gallia	580	1	.....	.....	.....	.....	.....	.....	.....	1.47	.....	0.65	0	7	.....	.....	.....	.....	Samuel F. Neal.
Garrettsville	Portage	1,005	29	65.0	− 0.4	96	30	29	10	44	1.30	− 2.39	0.57	0	4	19	8	3	w.	S. M. Luther.
Granville	Licking	960	31	69.8	+ 0.6	98	30	38	11	42	1.68	− 2.29	0.50	0	6	21	2	7	e.	Dr. L. E. Davis.
Gratiot	....do	1,000	24	69.0	− 0.4	93	16†	40	9†	38	3.43	− 0.78	0.80	0	9	18	11	1	w.	W. B. Longstreth.
Green	Adams	500	20	72.4	+ 0.4	98	30	40	10	43	2.53	− 1.71	1.22	0	4	26	2	2	w.	W. F. Kenyon.
Green Hill	Columbiana	1,135	20	64.8	− 1.1	96	30	31	10	42	0.63	− 3.31	0.40	0	4	21	8	1	sw.	Jos. E. Bentley.
Greenville	Darke	1,060	27	72.3	+ 2.9	95	16†	40	9	35	2.87	− 1.46	1.09	0	10	24	3	3	e.	Geo. A. Katzenberger.
Hamilton	Butler	601	1	73.6[b]	.....	100	30	40[c]	8	41[c]	3.00	.....	0.99	0	6	23	3	4	.....	Earl W. Stout.
Haydenville	Hocking	700	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. W. Stiers.
Hillsboro	Highland	1,063	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Cary H. Roush.
Ironton	Lawrence	575	30	73.4	+ 2.1	98	20†	40	11	42	1.50	− 3.12	0.61	0	6	20	5	5	sw.	James Bull.
Kenton	Hardin	1,015	21	69.2[a]	− 0.5	100[a]	30	35[a]	10†	42[a]	1.01	− 3.48	0.35	0	4	22	6	2	ne.	Frank B. Rarey.
Killbuck	Holmes	1,087	20	69.3	+ 1.0	98	30	36	9	40	1.25	− 2.37	0.60	0	7	26	4	0	ne.	John A. Schonauer.
Kings Mills	Warren	640	1	.....	.....	.....	.....	.....	.....	.....	2.41	.....	1.45	0	8	25	2	3	ne.	Frank M. See.
Lancaster	Fairfield	898	18	70.2	+ 1.1	95	26†	41	9†	39	1.91	− 2.73	0.58	0	6	23	1	6	sw.	R. L. Renshaw.
McConnellsville	Morgan	710	29	69.4	− 0.7	95	27†	39	11	39	1.85	− 2.47	0.63	0	8	18	5	7	ne.	C. H. Morris.
Marietta	Washington	627	93	72.0	+ 1.8	98	27†	42	9†	43	4.94	+ 0.71	2.00	0	10	17	10	3	n.	Prof. T. D. Biscoe.
Marion	Marion	980	35	70.4	+ 0.7	103	30	37	10†	43	3.52	− 0.56	1.40	0	7	10	17	3	sw.	Dr. E. H. Raffensperger.
Milfordton	Knox	1,200	21	68.6	+ 0.9	99	30	38	9†	40	1.51	− 2.29	0.63	0	5	21	9	0	ne.	L. H. Burgess.
Milligan	Perry	875	20	69.5	0	99	26†	32	12	55	1.51	− 2.75	0.81	0	6	19	10	1	sw.	V. C. Eveland.
Millport	Columbiana	1,145	20	66.0	− 0.7	96	30	32	10	43	0.72	− 3.08	0.54	0	4	17	12	1	sw.	G. F. Copeland.
Nellie	Coshocton	850	13	68.5	− 0.4	97	30	33	10	45	1.75	− 2.05	0.92	0	5	20	9	1	s.	Ethel L. Gammertsfelder.
New Berlin	Stark	1,100	20	67.2	− 0.4	97	30	35	9	39	0.80	− 2.83	0.45	0	3	24	5	1	n.	Clayton Holl.
New Waterford	Columbiana	1,053	18	70.5[b]	+ 3.2	105	30	36[d]	11	58[d]	1.29	− 3.38	1.11	0	2	24	5	1	sw.	Sam. C. Scott.
O. S. University	Franklin	757	30	70.8	+ 1.2	97	27†	38	9	40	1.10	− 2.36	0.45	0	7	17	7	6	ne.	Prof. H. C. Lord.
Oregonia	Warren	.....	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. H. Stephens.
Pataskala	Licking	1,015	21	69.6	+ 0.4	99	28	39	9†	40	1.57	− 2.40	0.50	0	7	17	12	1	ne.	J. N. Ridenour.
Peebles	Adams	645	2	70.6	.....	98	30	34	11	47	2.01	.....	1.11	0	9	23	4	3	nw.	Ora O. Smalley.
Philo	Muskingum	1,018	18	70.8	+ 0.3	95	30	40	9†	34	1.64	− 2.12	0.52	0	5	17	10	3	nw.	L. C. Buckholter.
Piqua	Miami	847	3	.....	.....	.....	.....	.....	.....	.....	1.59	.....	0.87	0	6	18	5	7	se.	Harry L. Roberts.
Plattsburg	Clark	1,130	20	70.6	+ 1.3	97	30	40	9	41	2.37	− 1.54	0.74	0	7	21	6	3	s.	F. E. Stewart.
Portsmouth	Scioto	527	82	74.6	+ 1.6	99	26†	41	10	39	1.55	− 2.55	0.70	0	6	15	4	11	sw.	Dr. H. A. Schirrmann.
Prospect	Marion	969	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Neil J. Gast.
Sidney	Shelby	985	30	71.4	+ 1.0	101	30	40	10	40	2.18	− 1.62	0.96	0	7	23	1	6	sw.	Hamline B. Blake.
Somerset	Perry	1,080	14	72.4	+ 1.9	100	27	40	9†	35	1.03	− 4.18	0.22	0	10	21	8	1	n.	Miss M. W. C. Sheridan.
Springfield	Clark	980	19	.....	.....	.....	.....	.....	.....	.....	1.85	− 2.73	0.47	0	9	17	11	2	ne.	W. A. Webster.
Summerfield	Noble	1,187	7	68.4	.....	97	27	35	10	45	2.57	.....	0.90	0	8	13	16	1	sw.	H. R. McClintock.
Syracuse	Meigs	583	2	72.2	.....	100	30	40	11	42	3.52	.....	1.47	0	8	22	3	5	.....	Irving R. Karr.
Thurman	Gallia	696	20	71.9	+ 0.4	94	30	42	9	35	1.95	− 2.40	0.95	0	4	14	10	6	.....	D. D. Thomas.
Toboso	Licking	.....	....	70.4	.....	98[a]	28	35	10	42[a]	1.41	.....	0.52	0	4	22	7	1	w.	H. A. Albyn.
Urbana	Champaign	1,031	45	70.0	+ 1.3	100	30	39	11	44	1.29	− 3.07	0.45	0	5	21	7	2	sw.	Prof. J. H. Williams.
Warren	Trumbull	900	24	67.6	+ 0.2	98	30	32	10	41	1.58	− 1.95	0.98	0	3	23	3	4	sw.	M. D. McCorkle.
Waverly	Pike	590	30	71.0	− 1.0	96	30	40	9†	42	3.29	− 0.95	1.56	0	7	17	0	13	s.	Dr. Peru Hutt.
Waynesville	Warren	700	28	70.9	+ 1.1	94	28	40	9	34	3.70	− 0.42	1.15	0	8	21	6	3	ne.	Charles Michener.
Wooster	Wayne	1,030	34	67.4	− 0.3	96	30	32	10	41	0.97	− 3.18	0.65	0	6	26	2	2	sw.	Experiment Station.
Youngstown	Mahoning	846	20	.....	.....	.....	.....	.....	.....	.....	1.68	− 1.32	1.07	0	5	26	2	2	sw.	J. M. Dickey.
Zanesville	Muskingum	700	26	.....	.....	.....	.....	.....	.....	.....	2.35	− 1.53	0.52	0	10	22	1	7	.....	S. G. Sprague.
Indiana.																				
Andersen	Madison	892	18	71.3	+ 1.2	95	16†	38	9	38	3.86	+ 0.07	1.20	0	9	19	7	4	n.	W. H. Stanton.
Attica	Fountain	522	3	.....	.....	.....	.....	.....	.....	.....	1.59	.....	0.49	0	6	.....	.....	.....	.....	J. Frederic Connell.
Bloomington	Monroe	744	18	75.5	+ 3.7	103	28	42	9	43	1.53	− 2.24	0.36	0	8	22	6	2	sw.	Earl E. Ramsey.
Bluffton	Wells	835	18	71.1	+ 2.8	100	30	37	10	44	1.71	− 2.39	1.32	0	7	22[e]	4	4	se.	George R. Rinehart.
Butlerville	Jennings	767	28	74.2	+ 1.9	102	30	41	9	45	0.74	− 3.67	0.32	0	6	26	2	2	.....	C. F. Hole.
Cambridge City	Wayne	941	22	70.5	+ 1.1	98	16	37	11	43	7.17	+ 2.86	1.56	0	9	25	0	5	s.	Heze Barnett.
Columbus	Bartholomew	632	30	73.6	+ 1.8	102	29†	38	9†	48	1.86	− 1.69	1.07	0	6	25	2	3	sw.	John A. Perry.
Connersville	Fayette	769	31	74.0	+ 3.2	101	16†	39	11	47	3.69	− 0.39	1.03	0	6	23	5	2	nw.	H. T. Swindler.
Crawfordsville	Montgomery	780	3	73.8	.....	101	20†	38	11	50	5.33	.....	1.57	0	5	17	8	5	w.	P. H. Burns.
Delphi	Carroll	668	28	72.8	+ 2.2	101	16†	38	10	41	1.23	− 3.09	0.26	0	9	19	8	3	.....	L. A. Higginbotham.
Evansville	Vanderburg	386	37	78.2	+ 2.9	100	29	48	9	29	1.55	− 2.62	0.74	0	7	15	10	5	ne.	U. S. Weather Bureau.
Farmersburg	Sullivan	.....	15	74.0	+ 3.3	100	19	41	9	40	1.67	− 2.37	0.86	0	6	8	20	2	sw.	Miss Carrie Yeager.
Farmland	Randolph	1,101	31	71.6	+ 1.8	97	30	39	9	34	4.28	+ 0.19	1.15	0	10	21	5	4	ne.	Ralph E. Lyst.
Forest Reserve	Clark	478	....	73.8	.....	98	17†	43	10†	40	3.21	.....	0.80	0	8	21	6	3	.....	Ambrose Waltman.
French Lick	Orange	506	....	73.2	.....	98	29	36	11	44	1.85	.....	0.68	0	7	17	10	3	sw.	U. S. Weather Bureau.
Greenfield	Hancock	905	10	72.7	.....	97	16	40	9	38	2.89	.....	0.75	0	5	0	27	3	s.	Frank Larrabee.
Greensburg	Decatur	954	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. C. Morrison, M. D.
Hickory Hill	Brown	.....	....	75.0	.....	98	16	42	9	30	2.26	.....	1.47	0	6	23	2	5	.....	Benjamin W. Douglass.
Huntingburg	Dubois	462	5	.....	.....	101	29	.....	.....	.....	5.61	.....	2.35	0	5	.....	.....	.....	.....	H. Dufendach.

TABLE 1.—*Climatological data for June, 1913. District No. 3*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
Indiana—Continued.																				
Huntington	Huntington	741	20	71.0	+ 1.4	100	30	38	8†	38	1.32	− 2.67	0.40	0	8	21	6	3	sw.	Chas. McGrew.
Indianapolis	Marion	822	41	74.2	+ 1.8	97	30	42	9	29	2.35	− 1.96	0.77	0	9	12	12	6	ne.	U. S. Weather Bureau.
Jeffersonville	Clark	455	31	75.3	+ 0.7	99	29	45	11	37	3.95	+ 0.23	1.26	0	10	18	7	5	w.	John C. Loomis.
Judyville	Warren	450	6	72.8	.....	102	16	36	10	45	1.63	.....	0.58	0	9	21	5	4	ne.	W. A. Hill.
Kokomo	Howard	840	21	70.3	− 0.3	97	29	36	10	39	2.34	− 1.46	0.64	0	7	18	8	4	sw.	P. H. Robertson.
La Fayette	Tippecanoe	617	34	73.2	+ 2.5	101	29	41	9	37	2.26	− 2.21	0.88	0	8	23	2	5	sw.	Wm. J. Jones, jr.
Logansport	Cass	620	33	73.6	+ 2.1	103	30	38	10	42	1.19	− 2.85	0.22	0	8	23	2	5	e.	Chas. Massena.
Madison	Jefferson	460	21	75.8	+ 1.8	103	29	43	11	42	2.64	− 1.35	1.31	0	8	17	12	1	sw.	Miss F. Cooperider.
Marengo	Crawford	363	31	73.6	+ 0.6	101	17	37	11	48	1.42	− 3.51	0.40	0	5	15	11	4	sw.	J. M. Johnson.
Marion	Grant	814	27	72.4	+ 2.2	101	28	39	9	39	0.88	− 3.20	0.26	0	7	20	4	6	s.	James F. Hood.
Mauzy	Rush	980	33	71.2	+ 1.1	96	16†	39	9†	40	2.61	− 1.68	0.92	0	6	17	7	6	sw.	Elwood Kirkwood.
Monticello	White	674	3	.....	.....	.....	.....	.....	.....	.....	1.44	.....	0.35	0	7	22	4	4	e.	J. E. Loughry.
Moores Hill	Dearborn	980	12	73.1	+ 2.8	99	30	41	9†	36	1.18	− 2.09	0.56	0	7	23[a]	3[a]	3[a]	n.	W. S. Bigney.
Mount Vernon	Posey	410	27	77.2	+ 1.9	103	17	47	9†	41	1.13	− 2.60	0.69	0	4	22	4	4	sw.	Guy B. Green.
Nashville	Brown	.....	.....	72.0	.....	96	28†	35	11	45	1.47	.....	1.30	0	4	20	2	8	sw.	W. C. Goble.
Paoli	Orange	611	16	73.8	+ 1.6	103	29	34	11	50	1.44	− 3.02	0.46	0	7	17	11	2	sw.	James A. Gillum.
Princeton	Gibson	481	31	77.4	+ 3.3	104	18	44	11	45	2.72	− 1.33	1.63	0	4	20	5	5	sw.	Albert Mills.
Richmond	Wayne	972	28	69.8	+ 0.4	95	16†	39	11	41	3.21	− 0.91	0.54	0	10	15	11	4	.....	Walter Vossler.
Rochester	Fulton	775	8	71.8	.....	97	19†	37	9	37	0.58	.....	0.32	0	4	20	7	3	.....	G. P. Keith.
Rockville	Parke	722	27	75.2	+ 4.2	100	16†	41	9	46	2.21	− 1.99	0.80	0	7	16	11	3	sw.	C. A. Lee.
Rome	Perry	370	10	77.2	+ 2.7	105	19	41	11	48	2.95	− 0.82	1.30	0	6	23	5	2	.....	Adam Anspach.
Salamonia	Jay	950	8	69.4[a]	.....	99[a]	29	35[a]	9	38[a]	2.96	.....	0.78	0	8	15[a]	10[a]	4[a]	sw.	S. A. Armstrong.
Salem	Washington	717	20	74.4	+ 2.6	101	30	39	11	47	3.08	− 0.86	1.29	0	7	14	13	3	s.	Emmet S. Allen.
Scottsburg	Scott	570	19	74.8	+ 0.7	101	30	41	11	40	2.66	− 1.57	1.00	0	7	21	6	3	s.	Frank H. Park.
Seymour	Jackson	610	26	75.2	+ 2.4	103	30	40	11	47	2.53	− 1.44	0.81	0	9	17	9	4	sw.	J. Thomas Hays.
Shelbyville	Shelby	768	9	73.5	.....	101	30	40	9†	45	2.61	.....	1.06	0	8	15	13	2	sw.	Edgar G. Hodson.
Shoals	Martin	523	6	74.8[b]	.....	102[b]	30	39[b]	11	43[b]	0.65	.....	0.34	0	5	19	5	6	e.	Rev. G. Halleck Rowe.
Terre Haute	Vigo	498	23	76.0	+ 2.4	100	29	44	9	36	1.06	− 3.10	0.47	0	6	8	18	4	sw.	U. S. Weather Bureau.
Veedersburg	Fountain	612	14	74.4	+ 4.1	101	16†	36	11	49	2.02	− 2.58	0.75	0	9	21	5	4	s.	L. A. Culver, jr.
Vevay	Switzerland	525	32	77.4	+ 3.8	101	27	42	9	31	3.75	− 0.91	1.25	0	7	13	12	5	sw.	Miss Frederica Boerner.
Vincennes	Knox	431	21	78.0[b]	+ 3.7	104	19	47[c]	9	38[c]	1.50	− 3.22	0.45	0	5	25	1	4	se.	Garrett V. List.
Washington	Daviess	484	17	77.4	+ 4.8	103	19	46	10	35	1.18	− 3.27	0.45	0	6	14	10	6	w.	Charles C. Feagans.
Whitestown	Boone	529	5	73.2	.....	98	19†	43	9†	35	3.14	.....	1.14	0	9	7	21	2	sw.	Clyde O. Laughner.
Winona Lake	Kosciusko	865	6	70.4	.....	101	30	35	3	46	1.02	.....	0.47	0	5	10	19	1	sw.	Rev. Albert A. Young.
Worthington	Greene	526	31	75.6	+ 3.3	101	16	43	11†	43	0.84	− 3.55	0.41	0	5	11	16	3	sw.	D. W. Solliday.
Illinois.																				
Albion	Edwards	531	22	77.0	+ 2.6	102	19	45	11	35	2.86	− 1.32	1.39	0	5	20	7	3	w.	B. F. Michels.
Casey	Clark	645	10	.....	.....	.....	.....	.....	.....	.....	1.66	− 1.56	0.60	0	6	20	5	5	sw.	William Chenoweth.
Charleston	Coles	720	28	75.8	+ 3.1	102	19	41[a]	11	44[a]	1.42	− 2.69	0.56	0	6	9	15	6	nw.	Jacob B. Daisy.
Danville	Vermilion	604	12	74.7	+ 2.2	102	30	39	11	46	2.42	− 0.40	0.80	0	6	20	4	6	sw.	J. J. Lemon.
Equality	Gallatin	421	15	79.6	+ 5.2	106	28	45	11	42	0.62	− 2.68	0.45	0	3	18	12	0	s.	Dr. L. W. Gordon.
Fairfield	Wayne	450	20	77.0[b]	+ 3.4	103[a]	19	44[b]	12	44[c]	1.48	− 2.41	0.75	0	4	17	8	5	s.	George A. Tromly.
Flora	Clay	495	27	77.0	+ 4.3	105	19	41	11	43	3.25	− 1.22	1.47	0	5	18	8	4	sw.	W. L. Hanna.
Golconda	Pope	500	35	78.4	+ 3.3	106	18	45	11†	48	3.07	− 0.96	1.80	0	5	15	9	6	sw.	Dr. D. Lawrence.
Hoopeston	Vermilion	715	11	73.4	+ 3.4	100	19†	38	9	44	3.28	+ 0.69	1.00	0	8	19	6	5	.....	S. F. Hoskinson.
McLeansboro	Hamilton	462	30	77.1	+ 2.8	103	18	47	9†	43	1.57	− 2.34	0.56	0	5	23	3	4	sw.	Prof. W. C. Fairweather.
Metropolis	Massac	346	2	.....	.....	.....	.....	.....	.....	.....	2.12	.....	0.85	0	6	22	6	2	s.	Henry H. Humma.
Montrose	Effingham	599	3	75.6	.....	104	17†	40[a]	12	48[a]	1.27	.....	0.42	0	6	13	13	4	sw.	F. C. Spitler.
Mount Carmel	Wabash	424	12	76.6	+ 4.1	101	19	47	9†	36	2.58	− 1.47	0.80	0	7	21	5	4	.....	Mrs. H. M. Phillips.
New Burnside	Johnson	613	18	76.9	+ 2.2	104	30	38	11	41	0.66	− 2.84	0.25	0	5	23	3	4	se.	Thomas H. McCabe.
Newton	Jasper	484	2	.....	.....	.....	.....	.....	.....	.....	1.12	.....	0.38	0	5	21	6	3	.....	J. M. Hicks.
Olney	Richland	486	26	76.5	+ 1.9	103	18†	39	11	46	1.48	− 2.21	0.63	0	4	.....	.....	.....	sw.	John T. Ratcliff.
Palestine	Crawford	500	31	76.0	+ 2.9	103	17	43[a]	9	40[a]	2.36	− 1.59	1.13	0	4	20	6	4	sw.	Duane Shaw.
Paris	Edgar	600	20	75.7	+ 3.1	104[a]	30	40	9	41[a]	0.95	− 2.59	0.46	0	4	.....	.....	.....	.....	H. P. Twyman.
Philo	Champaign	700	29	74.2	+ 3.4	101	16	39	9	46	1.64	− 1.96	0.87	0	4	22	5	3	sw.	H. A. Burr.
Rileyville	Saline	400	16	.....	.....	.....	.....	.....	.....	.....	2.48	− 1.30	1.06	0	6	17	4	9	sw.	W. H. Thornberry.
Shawneetown	Gallatin	307	3	.....	.....	.....	.....	.....	.....	.....	1.93	.....	1.00	0	5	.....	.....	.....	.....	Mrs. Mary O. Spivey.
Tuscola	Douglas	644	20	.....	.....	.....	.....	.....	.....	.....	1.28	− 2.23	0.44	0	6	15	12	3	sw.	Joseph O'Neal.
Urbana	Champaign	751	11	73.8	+ 4.2	98	19	40	9	37	1.73	− 0.71	0.64	0	7	11	15	4	sw.	University of Illinois.
Kentucky.																				
Alpha	Clinton	.....	19	72.6	− 0.5	93	27†	44	11	30	4.74	− 0.30	2.40	0	5	15	11	4	s.	W. W. Hicks.
Anchorage	Jefferson	700	12	74.0	+ 2.3	99	17†	42	12	41	3.29	− 0.47	1.01	0	7	24	4	2	sw.	C. E. Barrett.
Bardstown	Nelson	637	16	76.5	+ 1.9	103	29	44	11	42	4.49	+ 0.14	1.92	0	8	24	4	2	s.	T. S. Talbott.
Beattyville	Lee	650	9	72.4	+ 0.6	97	17	39	11	44	5.78	+ 0.90	1.68	0	8	10	9	11	w.	G. W. Cann.
Beaver Dam	Ohio	441	10	76.4	+ 3.4	103	18†	40	11	46	1.58	− 1.95	0.44	0	5	16	10	4	s.	W. T. Austin.
Berea	Madison	1,070	12	74.5	+ 2.5	100	30	39	11	38	3.30	− 1.96	1.03	0	9	22	3	5	nw.	C. F. Rumold.
Blandville	Ballard	445	32	77.2	+ 2.3	99	19†	50	12	32	0.54	− 4.29	0.21	0	7	15	12	3	sw.	E. W. Horr.
Bowling Green	Warren	500	24	76.6	+ 0.7	101	19†	40	12	44	2.86	− 0.85	1.25	0	7	26	3	1	s.	Mrs. L. G. Causey.
Burnside	Pulaski	773	22	.....	.....	.....	.....	.....	.....	.....	1.30	− 3.08	0.50	0	5	.....	.....	.....	.....	K. W. Massey.
Calhoun	McLean	397	10	76.5	+ 1.4	100	17†	45	11	40	2.50	− 1.02	1.59	0	6	9	20	1	sw.	W. A. Taylor.
Catlettsburg	Boyd	544	24	.....	.....	.....	.....	.....	.....	.....	2.70	− 1.98	0.96	0	7	.....	.....	.....	.....	Mrs. Mertie M. Bruns.
Earlington	Hopkins	370	23	78.4	+ 2.8	107	29	42	11	44	2.19	− 1.34	0.95	0	5	22	3	5	n.	Brick Southworth.
Edmonton	Metcalfe	600	22	74.2[a]	+ 1.1	98	29†	43[b]	11	42[b]	4.53	+ 0.26	1.36	0	8	18	7	5	s.	Miss Lee Ray.
Eubank	Pulaski	1,177	19	72.5	+ 1.4	96	30	42	11†	38	4.87	+ 0.79	1.50	0	6	18	5	7	s.	Mrs. Katie Payne.
Falmouth	Pendleton	530	24	.....	.....	.....	.....	.....	.....	.....	2.03	− 2.19	1.04	0	8	21	4	5	n.	J. V. Oldham.
Farmers	Rowan	668	6	70.8	.....	95	27†	38	11	46	1.61	.....	1.00	0	4	23	2	5	.....	Lee Craycraft.
Frankfort	Franklin	560	22	75.0	+ 1.7	102	30	45	12	37	2.08	− 2.04	0.79	0	6	19	8	3	e.	J. H. Roberts.
Franklin	Simpson	691	19	76.8	+ 1.9	98	20†	46	10	34	2.20	− 1.77	1.40	0	6	7	23	0	ne.	J. E. Newman.
Greensburg	Green	581	21	77.8	+ 4.3	101	29†	41	11	43	4.14	− 0.39	1.05	0	9	16	4	10	n.	Mrs. Bettie K. H. Alcorn.
High Bridge	Jessamine	762	10	.....	.....	.....	.....	.....	.....	.....	2.59	− 1.90	0.95	0	7	.....	.....	.....	.....	Miss Lulu Wood.
Hopkinsville	Christian	524	17	79.0	+ 4.4	106	29	45	11†	50	0.52	− 4.12	0.20	0	4	18	2	10	e.	W. F. Randle.
Irvington	Breckenridge	.....	15	75.4	+ 1.8	99	19	45	9†	37	3.11	− 1.01	1.52	0	8	21	4	5	sw.	W. J. Piggott.
Leitchfield	Grayson	635	17	75.2	+ 2.6	99	17†	46	11†	40	4.17	+ 0.21	1.52	0	9	20	10	0	sw.	John E. Stone.
Lexington	Fayette	989	25	73.4	+ 0.2	95	30	45	9	28	3.29	− 0.70	1.18	0	8	18	8	4	sw.	U. S. Weather Bureau.
Loretto	Marion	681	16	.....	.....	.....	.....	40	11	.....	3.02	− 1.62	1.03	0	7	23	1	6	.....	Loretto Academy.
Louisa	Lawrence	.....	0	.....	.....	.....	.....	.....	.....	.....	1.83	.....	0 96	0	5	.....	.....	.....	.....	Lucien S. Johnson.
Louisville (1)	Jefferson	525	41	76.2	+ 1.2	100	29	47	9	31	4.55	+ 0.32	1.70	0	10	19	3	8	s.	U. S. Weather Bureau.
Louisville (2)	....do	.....	3	74.8	.....	100	17	45	9†	40	5.68	.....	2.16	0	9	17	8	5	s.	W. I. Hunt.

TABLE 1.—*Climatological data for June, 1913. District No. 3*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
***Kentucky*—Continued.**																				
Marion	Crittenden		18	78.0	+ 3.1	101	18†	46	11	36	0.95	− 2.70	0.31	0	4	18	8	4	sw.	B. C. Paris.
Maysville	Mason	524	16	73.8	+ 1.0	101	30	41	11	42	1.76	− 3.02	0.81	0	7	21	6	3	se.	Mrs. Mary D. Marsh.
Middlesboro	Bell	1,128	18	72.6	+ 0.4	95	29	42	11	40	2.07	− 2.47	0.62	0	9	19	11	0	.....	B. H. Perkins.
Mount Sterling	Montgomery	930	23	74.6	+ 2.2	99	30	43	11	39	3.17	− 1.81	0.90	0	8	24	1	5	s.	James O'Connell.
Owensboro	Daviess	479	16	76.4	+ 2.1	100	29†	47	12	34	1.68	− 1.84	0.77	0	5	16	8	6	se.	Henry S. Berry.
Paducah	McCracken	341	24	.....	.....	.....	.....	.....	.....	.....	0.40	− 4.51	0.20	0	3	.....	.....	.....	.....	S. A. Fowler.
Pikeville	Pike	.....	5	.....	.....	.....	.....	.....	.....	.....	3.20	.....	1.00	0	9	.....	.....	.....	.....	I. M. Williams.
Richmond	Madison	926	21	75.3	+ 2.0	98	30	45	10	32	2.99	− 0.90	1.08	0	9	20	4	6	e.	J. W. Crooke.
St. John	Hardin	777	17	74.6	+ 2.8	100	17	44	12	42	3.05	− 0.99	0.99	0	7	23	0	7	.....	Bethlehem Academy.
Scott	Kenton	.....	15	73.8	+ 2.1	96	17†	42	9	38	3.61	− 0.09	1.37	0	8	22	5	3	n.	E. B. Wilson.
Shelby City	Boyle	1,087	19	73.0	+ 1.4	100	17	39	11	43	2.25	− 1.57	1.05	0	6	23	5	2	sw.	H. F. Ewing.
Shelbyville	Shelby	759	24	75.8[e]	+ 1.9	102[e]	19†	43	9	42[e]	4.31	− 0.39	0.80	0	8	21	0	9	s.	C. R. Burnett.
Taylorsville	Spencer	489	11	73.5	+ 1.1	99	20†	41	11	43	2.90	− 2.06	0.60	0	9	20	5	5	sw.	E. D. Bourne.
Williamsburg	Whitley	939	17	74.1	+ 0.8	100	29†	41	11	45	4.01	− 0.66	1.05	0	10	22	1	7	e.	Noble C. Jones.
Williamstown	Grant	943	11	73.6	+ 3.2	97	20†	40	9	36	1.43	− 2.83	0.95	0	4	20	3	7	.....	Miss Rose Carter.
Tennessee.																				
Ashwood	Maury	725	40	75.9	+ 1.0	102	27	44	12	40	0.90	− 3.28	0.35	0	3	7	16	7	s.	Mrs. Joseph W. Fleming
Benton	Polk	880	29	75.7	+ 1.8	101	29	45	11†	35	2.89	− 2.83	0.85	0	6	12	17	1	n.	George L. Williams.
Bird's Bridge	Greene	.....	7	.....	.....	.....	.....	.....	.....	.....	3.98	.....	1.66	0	9	23	2	5	w.	David B. George.
Bluff City	Sullivan	.....	18	.....	.....	.....	.....	.....	.....	.....	3.71	− 0.99	1.51	0	12	20	2	8	e.	Walter C. Masengill.
Byrdstown	Pickett	1,026	21	76.1	+ 3.1	99	29†	47	11	38	1.39	− 3.66	0.96	0	5	9	13	8	w.	John Lacy.
Carthage	Smith	500	30	75.8	+ 0.9	98	27†	46	11	38	4.78	− 0.05	2.40	0	5	24	1	5	se.	Earl C. Pickering.
Cedar Hill	Robertson	625	15	78.0	+ 2.1	103	30	45	9	44	2.40	− 1.93	1.20	0	3	24	6	0	s.	J. Frank Ruffin.
Celina	Clay	494	10	.....	.....	.....	.....	.....	.....	.....	3.41	− 1.35	1.23	0	8	24	0	6	s.	Charles M. Anderson.
Charleston	Bradley	709	29	.....	.....	.....	.....	.....	.....	.....	3.63	− 2.42	1.50	0	10	21	3	6	s.	John T. Weeks.
Chattanooga	Hamilton	808	34	76.0	+ 0.6	98	29	50	12	33	4.13	− 0.18	1.10	0	11	12	16	2	w.	U. S. Weather Bureau.
Clarksville	Montgomery	500	53	78.6	+ 5.0	104	29	48	11†	44	2.31	− 1.84	1.44	0	3	21	7	2	w.	Prof. James A. Lyon.
Clinton	Anderson	800	29	.....	.....	.....	.....	.....	.....	.....	2.04	− 3.06	0.88	0	6	17	2	11	sw.	H. C. Slover.
Crossville	Cumberland	1,895	1	72.0	.....	96	29	41	11†	38	1.33	.....	0.66	0	6	12	7	1	.....	J. E. Converse.
Dandridge	Jefferson	.....	8	.....	.....	.....	.....	.....	.....	.....	2.24	.....	0.80	0	7	21	5	4	w.	James E. Swann.
Decatur	Meigs	850	18	75.3	+ 0.8	99	26†	42	12	42	2.85	− 2.33	0.93	0	8	18	8	4	sw.	J. Worth Lillard.
Dickson	Dickson	800	20	75.0	+ 1.1	99	29	45	11	39	1.56	− 2.54	1.10	0	2	23	6	1	s.	Nathan R. Sugg
Dover	Stewart	500	17	77.4	+ 2.4	103	29†	45	11	43	0.36	− 3.65	0.20	0	2	22	7	1	s.	Asa M. Tippit.
Dunlap	Sequatchie	726	4	76.2	.....	101	18†	43	12	45	1.31	.....	0.87	0	9	14	15	1	.....	S. Bradford Boyd.
Elizabethton	Carter	1,575	22	.....	.....	.....	.....	.....	.....	.....	2.20	− 3.99	0.95	0	10	18	0	12	e.	Charles Boyd.
Erasmus	Cumberland	1,850	16	70.6	+ 1.7	95	29	39	14	48	3.18	− 2.41	0.66	0	9	16	12	2	se.	Mrs. Sarah E. Ashley.
Florence	Rutherford	560	31	75.4	+ 0.3	96	20	47	11†	35	2.18	− 1.76	0.74	0	8	18	9	3	s.	Erastus P. Bell.
Franklin	Williamson	648	25	75.3	+ 0.8	98	29	46	12	36	1.65	− 2.69	0.82	0	3	14	10	6	.....	Young M. Rizer.
Hall's Hill	Rutherford	.....	10	.....	.....	.....	.....	.....	.....	.....	4.76	− 0.89	2.25	0	6	24	0	6	s.	Edward F. Wright.
Hohenwald	Lewis	983	30	76.6	+ 3.2	103	18	49	11†	42	2.92	− 2.13	1.30	0	8	19	11	0	s.	Mrs. Mary Lutzelman.
Iron City	Lawrence	600	18	74.4	− 0.1	100	28	42	12	41	2.89	− 2.19	0.96	0	6	11	19	0	nw.	Capt. H. Paul Seavy.
Jefferson City	Jefferson	.....	3	.....	.....	.....	.....	.....	.....	.....	4.55	.....	2.92	0	9	.....	.....	.....	.....	Calvin C. Maddox.
Johnson City	Washington	1,620	20	71.6	0.0	97	26†	42	11	38	3.47	− 1.21	1.04	0	6	26	3	1	w.	Ward Crosby.
Johnsonville	Humphreys	364	29	77.0	+ 1.9	101	18†	45	12	44	1.63	− 2.47	0.54	0	6	15	12	3	s.	Miss Sallie B. Mathews.
Kingston	Roane	.....	29	.....	.....	.....	.....	.....	.....	.....	3.10	− 1.42	1.46	0	8	23	0	7	e.	Henry Crumbliss.
Knoxville	Knox	977	42	75.1	+ 1.7	95	17	48	12	35	1.56	− 2.61	0.44	0	10	13	12	5	ne.	U. S. Weather Bureau.
Lebanon	Wilson	522	4	76.4	.....	99	20†	45	11	38	2.48	.....	0.70	0	7	14	6	10	n.	H. Logan Fields.
Lewisburg	Marshall	727	19	75.4	− 0.2	99	18	46	11†	39	4.77	+ 0.59	2.26	0	4	16	12	2	n.	Dr. Robert D. Crutcher.
Liberty	DeKalb	672	16	.....	.....	.....	.....	.....	.....	.....	4.46	.....	1.45	0	6	25	0	5	s.	Bratten Evans.
Loudon	Loudon	816	22	.....	.....	.....	.....	.....	.....	.....	2.23	− 2.53	1.26	0	4	22	2	6	s.	Robert W. Clark.
Lynnville	Giles	770	26	74.8	0.0	96	29	48	12	42	3.98	− 0.63	2.11	0	4	12	15	3	s.	Col. James H. Burrow.
McGhee	Monroe	.....	8	.....	.....	.....	.....	.....	.....	.....	1.76	.....	0.98	0	5	24	0	6	s.	Miss Alice L. Headrick.
McMinnville	Warren	1,011	32	74.4	+ 0.7	99	30	44	12	39	5.99	+ 1.15	1.55	0	7	17	11	2	sw.	Horace H. Stiles.
Maryville	Blount	1,050	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Sam T. Broyles.
Mountain City	Johnson	2,486	16	67.6	+ 0.6	88	29	36	11	41	2.98	− 2.76	0.84	0	13	15	14	1	.....	Edward E. Barry.
Nashville	Davidson	654	42	77.3	+ 1.0	100	29	50	12	34	0.90	− 3.47	0.36	0	6	13	14	3	w.	U. S. Weather Bureau.
Newport	Cocke	1,280	23	73.6	− 0.6	95	29†	45	11	33	3.56	− 0.71	1.05	0	9	22	2	6	w.	Dr. Charles T. Burnett.
New River	Scott	1,215	5	.....	.....	.....	.....	.....	.....	.....	2.30	.....	0.82	0	5	25	1	4	sw.	Burl W. Buttram.
Palmetto	Bedford	770	23	75.7	+ 0.7	98	29	48	12†	35	4.10	− 0.26	2.00	0	5	23	6	1	n.	Mrs. Rose Woods.
Perryville	Decatur	387	17	76.8	.....	103	28	45	11	42	1.65	− 2.72	1.09	0	4	18	8	4	.....	Oliver C. Kirksey.
Pinewood	Hickman	.....	7	76.6	.....	103	18†	43	13	48	2.45	.....	1.50	0	3	19	8	3	s.	Miss Carrie Cash.
Rogersville	Hawkins	1,150	29	73.3	+ 1.5	96	29	45	13	39	2.85	− 1.10	0.98	0	10	18	10	2	e.	Fred Beal.
Rugby	Morgan	1,410	24	72.0	+ 0.7	98	29	38	2	47	2.63	− 1.99	1.30	0	6	15	7	8	n.	Samuel G. Wilson.
Savannah	Hardin	442	30	78.4[e]	+ 2.8	99	18†	46	2	41[e]	3.03	− 1.64	1.75	0	5	18	9	3	s.	W. H. Carrington.
Sevierville	Sevier	.....	7	73.8	.....	95	26	42	11	39	2.56	.....	1.10	0	10	9	8	13	sw.	Herbert O. Eckel.
Sewanee	Franklin	2,000	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	University of the South
Sparta	White	920	7	74.6	.....	99	26	45	11†	43	2.38	.....	0.98	0	7	13	7	10	w.	Ernest H. Hull.
Springville	Henry	377	11	76.9	+ 3.2	103	18†	43	11†	45	1.70	− 1.20	0.53	0	6	24	4	2	s.	Hudnall A. Boden.
Tazewell	Claiborne	1,350	16	72.2	.....	97	30	38	11	44	2.51	− 2.00	0.70	0	7	19	3	8	ne.	J. Caloway Carr.
Tullahoma	Coffee	1,075	26	73.8	+ 1.0	96	29	45	12	37	1.40	− 2.99	1.13	0	3	15	12	3	s.	Reuben T. Moore.
Walling	White	909	9	.....	.....	.....	.....	.....	.....	.....	3.47	.....	1.05	0	9	19	9	2	s.	John K. Roberts.
Waynesboro	Wayne	753	28	74.9	+ 1.2	99	18†	43	12	41	2.36	− 2.02	0.68	0	8	10	17	3	s.	Harry C. Boyd.
Wildersville	Henderson	400	17	78.7	+ 4.4	102	19†	47	12†	43	2.02	− 2.29	1.90	0	2	19	8	3	s.	William R. Wilson.
Worsham	Sumner	550	11	.....	.....	.....	.....	.....	.....	.....	1.69	− 2.77	0.63	0	5	20	8	2	w.	James G. Elizer.
Yukon	Lincoln	850	17	74.7	− 0.7	96	27	47	6	37	2.94	− 1.37	1.37	0	6	11	18	1	se.	William P. Watson.
Alabama																				
Bridgeport	Jackson	660	13	.....	.....	.....	.....	.....	.....	.....	1.98	− 2.41	0.45	0	9	.....	.....	.....	.....	R. L. Moore.
Decatur	Morgan	573	31	75.6	− 1.8	98	18†	48	12	37	4.25	− 0.22	1.82	0	11	.....	.....	.....	.....	Ernest A. Carriger.
Florence	Lauderdale	563	29	75.4	− 1.1	98	29	48	11	43	6.82	+ 2.05	3.53	0	9	16	11	3	se.	Cyrus A. Ashcraft.
Guntersville	Marshall	580	3	.....	.....	.....	.....	.....	.....	.....	3.42	.....	2.45	0	8	.....	.....	.....	.....	L. S. Long.
Madison	Madison	573	19	77.5	+ 1.0	101	18†	53	13	41	3.88	− 0.48	1.36	0	5	16	10	4	.....	Edward Humphrey.
Riverton	Colbert	360	16	76.0	+ 0.5	99	18†	44	12	43	2.65	− 1.81	2.12	0	3	.....	.....	.....	.....	James F. Long.
Scottsboro	Jackson	652	30	74.6	− 0.7	98	28	45	12	38	2.60	− 2.67	1.04	0	11	9	9	12	e.	H. A. Caldwell.
Tuscumbia	Colbert	488	31	77.9	+ 0.9	101	18†	49	12	39	5.21	+ 0.65	2.93	0	6	.....	.....	.....	.....	Samuel Moore.
Georgia.																				
Diamond	Gilmer	2,020	21	71.4	− 0.1	94	17†	46	12	41	5.37	− 0.80	1.49	0	10	15	13	2	.....	R. A. Kimzey.
Mineral Bluff	Fannin	1,571	.....	71.8[i]	.....	95	29	41	12	46	4.80	.....	1.00	0	8	.....	.....	.....	.....	W. T. S. Deckey.

TABLE 1.—*Climatological data for June, 1913. District No. 3*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
North Carolina.																				
Altapass	Mitchell	2,629	....	66.4	.....	88	27†	34	11	37	4.35	.....	1.50	0	4	20	5	5	sw.	Altapass Inn.
Andrews	Cherokee	1,800	3	71.8	.....	96	28†	38	12	44	2.96	.....	0.71	0	11	12	17	1	sw.	J. D. Link.
Asheville	Buncombe	2,255	34	69.4	+ 0.7	89	28	46	11	33	2.90	− 1.45	1.03	0	13	11	14	5	nw.	U. S. Weather Bureau.
Banners Elk	Avery	3,750	5	63.0	.....	87	26	36	10†	40	3.45	.....	1.55	0	6	18	9	3	w.	T. L. Lowe.
Blantyre	Transylvania	1,900	1	.....	.....	....	....	....	....	....	1.26	.....	0.36	0	9	....	....	....	.....	R. W. Collett.
Blowing Rock	Watauga	4,090	4	.....	.....	....	....	....	....	....	3.13	.....	1.03	0	7	....	....	....	.....	E. G. Underdown.
Bryson City	Swain	2,000	25	.....	.....	....	....	....	....	....	2.90	− 1.66	1.38	0	6	....	....	....	.....	D. K. Collins.
Cane River	Yancey	2,700	....	.....	.....	....	....	....	....	....	4.77	.....	1.02	0	14	....	....	....	.....	Hiram A. Proffit.
Cullowhee	Jackson	2,100	3	69.7	.....	92	29	37	12	48	2.93	.....	0.71	0	13	10	12	8	s.	Frank H. Brown.
Eagles Nest	Haywood	5,050	....	64.0	.....	80	28†	35	9	33	10.22	.....	3.20	0	11	22	5	3	ne.	S. C. Satterthwait.
Ellijay	Macon	2,500	....	.....	.....	....	....	....	....	....	2.69	.....	0.61	0	12	....	....	....	.....	Chas. G. Mincy.
Hendersonville	Henderson	2,167	16	.....	.....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. L. B. Morse.
Highlands	Macon	3,850	23	64.2	− 0.4	84	17	35	12	32	8.64	+ 1.91	2.45	0	11	8	21	1	nw.	T. G. Harbison.
Hot Springs	Madison	1,326	15	72.2	+ 0.2	90	22†	44	11	35	5.95	.....	1.37	0	11	10	15	5	w.	P. A. Garner.
Jefferson	Ashe	2,900	6	.....	.....	....	....	....	....	....	.....	.....	.....	.....	.....	....	....	....	.....	Prof. E. J. Johnson.
Marshall	Madison	1,646	11	72.4	+ 1.2	95	28	44	11	40	3.33	− 1.41	1.24	0	10	17	4	9	w.	M. L. Church.
Murphy	Cherokee	1,614	37	.....	.....	....	....	....	....	....	4.88	− 0.51	1.52	0	9	....	....	....	.....	Miss Victoria Mingus.
Rock House	Macon	3,100	21	67.4	− 1.1	85	17	41	11†	27	10.43	+ 2.38	2.57	0	13	10	15	5	se.	Barry C. Hawkins.
Transon	Ashe	2,600	1	.....	.....	....	....	....	....	....	3.99	.....	1.00	0	9	....	....	....	.....	S. M. Transou.
Waynesville	Haywood	2,792	19	68.0	+ 0.1	91	29	40	12	44	3.80	− 0.93	1.55	0	13	13	14	3	sw.	Mrs. Chas. E. Quinlan.
Virginia.																				
Blacksburg	Montgomery	2,170	22	68.0	+ 0.2	90	20†	35	11	40	4.58	+ 0.03	1.10	0	12	14	11	5	sw.	Agricultural Exper. Station.
Burkes Garden	Tazewell	3,250	18	64.4	+ 0.4	84	26	31	11	39	4.10	− 1.83	1.10	0	8	12	9	9	sw.	C. H. Greever.
Elk Knob	Lee	3,243	10	72.5	+ 2.1	92	30	46	10	26	2.22	− 2.92	0.77	0	8	20	5	5	n.	Henry Nicoll.
Emory	Washington	2,094	1	68.2	.....	91	28†	35	11	40	2.15	.....	0.92	0	6	21	0	9	.....	J. E. Weaver.
Ivanhoe**	Wythe	2,028	9	68.4	.....	86	17	42	10†	30	2.56	.....	0.60	0	13	10	17	3	w.	Miss Alice G. Jewett.
Max Meadows	....do	2,028	17	68.6	+ 0.9	90	28	35	11	35	4.92	+ 0.24	1.25	0	11	14	11	4	sw.	James M. Graham.
Mendota	Washington	1,350	4	.....	.....	....	....	....	....	....	4.48	.....	1.15	0	11	....	....	....	.....	Frank M. Barker.
Mountain Lake	Giles	4,348	3	60.2	.....	82	28	28	10	36	6.23	.....	1.20	0	10	23	5	2	.....	H. E. Dorland.
Radford	Montgomery	1,773	4	.....	.....	....	....	....	....	....	2.86	.....	0.98	0	5	....	....	....	.....	Arthur Roberts.
Speers Ferry	Scott	1,221	17	.....	.....	....	....	....	....	....	2.27	− 2.94	1.00	0	6	....	....	....	.....	Miss L. E. Venable.
Wytheville	Wythe	2,293	20	68.6	− 0.1	89	28	36	11	36	2.84	− 1.27	0.71	0	12	14	13	3	w.	U. S. Weather Bureau.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
**Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for June, 1913. District No. 3, Ohio Valley.*

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
New York.																																
Allegany	Allegany	.13	.32					.57									.52				.22	.32				.22	.21	.17				2.16
Bolivar	do		.60					.35												.09	.53	.24			T.		.10	.38				2.81
Olean	do		.35					.65	.05								.35				.12	.45					.50	.10				2.57
Pennsylvania.																																
Aleppo	Ohio	.24																			.64	.35	.12		.06		1.51					2.92
Baldwin	Allegheny	T.						T.								T.	T.				1.25	.25				.55	.26					2.21
Beaver Dam	Ohio		.09						T.								T.				.49		T.				.25					0.83
Beaver Falls	do		.08						T.								.02				.40	.25	T.				.09	.60				1.44
Brookville	Allegheny		.06														.01				.71	1.01				.58	.97	.01	.25			3.62
California	Monongahela							.02													.45	.06	T.	T.			1.26	.01					1.80
Cheat Haven	do	.04						.20													.38	1.24	.16	.10	.17	.12	.51		.14			3.06
Clarion	Allegheny		.10														.15				1.15	1.06	.25			.15	2.00	2.25					7.61
Claysville	Ohio	.13						.10													.30	.09			T.		.48					1.10
Confluence	Youghiogheny							T.	.30												.68	.10	.21	.10	.53		.63	.56				3.11
Coraopolis	Ohio		.02															T.			.72	.01	T.				.45	.05				1.25
Davis Island Dam	do		.10					.01	T.									T.			.50	T.	.03				.32	.01				0.97
Derry Station	Allegheny							.96													.38	.54			.24	T.	.47	.40	.02			3.01
Edinboro	do	1.47						.71								T.					1.07	.54				.55	.54	.01	.19			5.08
Ellwood City			.09														.03				.60	.40	.03				.76					1.91
Franklin	Allegheny		.14					.23									.05				.58	1.08	.04			.03	.53	.21	.44			4.33
Freeport	do		.19					.02	.02								T.				.48	.71				T.	.75	.45				2.61
Greensboro	Monongahela		.10						.20												.50	.80	.24	.16	.12	.18	.50					2.80
Greensburg	Youghiogheny	.04						.05										.15			.30	.84				.06	.32	1.35				3.11
Greenville	Ohio	.07	.10													.05					.75	.52				.15	1.19					2.80
Grove City	do	.08	.16													.50					.39	.61				T.	.52					2.26
Herrs Island Dam	Allegheny		T.					.03	T.									T.			.42	.67	.06				.32	.02				0.92
Indiana	do	.14	.07														.07				.30	.38				.38	.84		.04			2.22
Irwin	Monongahela	T.						.12													.46	.77	.02		.02	.42	.56	.26				2.63
Johnstown	Allegheny	.09	.02					.19													.79	.44		.04	.07	.02	.81	.06	.13			2.66
Lock No. 4	Monongahela		.08						.30												.50	.30	.05				.86					2.09
Lycippus	Allegheny							.21										T.			.31	.37					.32	.31				1.52
Mosgrove	do		.02															T.			.35	1.15	.03				.15	.24	.01			1.95
Parkers Landing	do		.01														.04				.34	.88	.04			.01	1.30	.04				2.69
Pittsburgh	Ohio	T.						.05								T.		T.			.59	.07				.24	.09					1.04
Ridgway	Allegheny	.15																			1.72	.47				.12	.90	.02	.05			3.43
Saegerstown	do	.50	.05					.68													.70	.40			.05	.38	.74	.02	.05			3.57
Saltsburg	do		.08					T.	.08												.44	.43	.01			T.	.07	.60				1.71
Sharon	Ohio		.07														.22				.25	1.40	.03			T.	.49					2.46
Somerset	Youghiogheny	.15						.51												.25	.15	.11		.42	.22	.68	.31					2.86
Springdale	Allegheny		.04																		.42	.25					.40	.38				1.49
Uniontown	Monongahela							.38													.85	.66		.15	.50		1.37		.23			4.14
Warren	Allegheny	.20						.45									.36				1.00	.53					.49		.04			3.07
West Newton	Youghiogheny		.08						.45									.39			.54	.20	.02				1.10	.02					2.80
Maryland.																																
Deer Park	Youghiogheny	.26						.60												.14		.89	.24	.69	.10		.35	.36	.58			4.21
Grantsville	do							.55													.52	.72	.11	.34	.40	T.	.52	.42				3.58
Oakland	do	.22						.62	.07												.18	.59	.33	.83	.07	T.	1.00	.04	.15			4.10
West Virginia.																																
Bancroft	Great Kanawha		.15	.19				.47	.94													.35	.33	.85	.10							3.38
Beckley	do			.23				.55	.36									2.38								2.33		.18				6.03
Bens Run	Ohio	.28															.93				.50	.13	.55	.06		.04						2.49
Bluefield	Great Kanawha				*	*	*	*	*	2.50			.40					.65						.30	.50	.98	.07		.31				5.71
Brandonville	Monongahela								.53												.29	.93	.32		.52	.25		.20				3.04
Buckhannon	do							.90	.20											T.		.23	.30	.77	.20				T.			2.60
Cairo	Little Kanawha		.42						.22	.14							.55	.08			.09		.63	.45		.40	.24	.81				4.03
Central Station	Middle Is. Creek	.27						.30	T.								.03	T.			.06	T.	.33	.30	.61	.07	.20		.06			2.23
Charleston	Great Kanawha		T.		.22			.20	1.32	.06								.05					.18	.80	.03							2.86
Cheat Bridge	Monongahela																															
Cortland	do		.36						.66													.12	.67	.51	.70		.44			.86		4.32
Creston	Little Kanawha		.25					T.	.88									.03			.02		.32	.26	.28	.03	2.03					4.10
Cuba	Sand Creek	.38						.55	.03								.10				T.		.54	.12	.05	.15	.17	T.				2.09
Davis	Monongahela		.10			T.		T.	.99									T.			.12	.06	.85	.20	.80	T.	.17	.54	.38			4.21
Doane	Big Sandy																															
Elizabeth	Little Kanawha		.30					.12	.36									.16			.13		.23	.65	.22	.65	1.26		.46			4.54
Elkhorn	Big Sandy				.20	T.	.08	2.05	.10	.35							1.65	.22				.15	.65			.15		.40		.20		6.20
Elkins	Monongahela	.12	T.					.61	.07												T.	.03	.41	.88	.45	.19	T.	T.	.07			2.83
Fairmont	do		.15					.10	.40												.38	.80	.30	.07	1.35	.15	.55					4.25
Glenville	Little Kanawha								1.80														.48	.52	.10	.28	1.10					4.28
Grafton	Monongahela		.15					1.18												.28			.20	.62	.08	.20	.34		.32			3.37
Green Sulphur Spgs.	Great Kanawha		.01		.90			.32	.45	T.							.08	.32					.02	.02	.23	.14				.03		2.52
Hinton	do				.82			.04	.64	.10			.06					.42						.08			.42					2.58
Holcomb	do	.17			.24			*	1.22									.14			.83		*	.80		.34						3.74
Huntington	Ohio		.10		.10			.38	.60													.06	.48	1.18								2.90
Lewisburg	Great Kanawha			.28	.99		.25	.46	.21								.08		.08			T.	.14	.03	T.	1.06	T.			.19		3.77
Logan	Guyandotte				.47		.02	.35	.60								T.	.62					.26	.08	.07		T.	T.				2.47
Lost Creek	Monongahela	.31						.30														T.		.20	.10	.08	T.	.14		T.			1.13
Madison	Great Kanawha	.10		.26				1.00	.25														.21	.01			T.					1.83
Mannington	Monongahela	.24						.22													.43	.85	.29	.14	.19		.42					2.78
Marlinton	Great Kanawha		.80	.20			.20	.10									.05						.40			1.10						2.85
Morgantown	Monongahela	.11			T.			*	*	.41											.34	.49	.18	.10		*	.32		.09			2.04
Moundsville	Ohio	.10	.07					.17												.93		.52	.05	.04		.91		.03				2.82
New Cumberland	do	.10						T.										T.			.60	T.				1.70	.90					3.30
New Martinsville	do	.30						.18													.83	.32	.55	.08								2.26
Nuttallburg	Great Kanawha				.44			1.50	.55								1.15	1.10					.40			.73		T.				4.87
Osceola	Monongahela																															
Parkersburg	Ohio	.20	.07	T.				.52	.01								.20				.05	T.	.63	.37	.01	.90		T.				2.96
Parsons	Monongahela	.12						.76													1.00	.30	.80	.65	.35			.20				4.18
Philippi	do	.11	.01					1.20	.05												.24	.13	.30	.38	.57		.04		.50	.01		3.54
Pickens	do	.14			T.			*	1.39								.09					.16	.95			.32	.24	.11	.17	.63		4.20
Point Pleasant	Ohio		.22					.04	.54												.06	.06	.22	.22	.28	.04			.04			1.72
Powellton	Great Kanawha		.05		.33		.35	1.31	.75								.17	1.91				.17	.33	.16	*	*	*	.90					6.43
Princeton	do		.10	1.25				2.25	.35			.50					.75		.50				.15	.20			.50						6.55
Robertsburg	do		.27		.12			.37	.55	.05													.70	.35	.05								2.46
Rowlesburg	Monongahela		.72					.60	.60												.20	.34	.30	.12	.51	.94	.24			.06			4.63
Ryan	Great Kanawha	.16			.06			1.58	.02								.08	.05				T.	.69	.15		.20							2.99
St. Marys	Ohio		.21					.08	.01									.81			.32	.22	.35	.23	.03		.15						2.41

TABLE 2.—*Daily precipitation for June, 1913. District No. 3*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total.
***West Virginia*—Con.**																																
Smithfield ‖	Fishing Creek		.52	.47	.12				.22												.56	.93	.27	.26		.32	.41					4.08
Spencer ‖	Little Kanawha		.30						1.44														.45	.21		.43						2.83
Sutton	Great Kanawha		T.					.41	.47	T.								.25				.40	.72	T.	T.	.35	.29					2.89
Union	do				.46				.98	.35			.10						1.60					2.02	.02	.10	.40					6.03
Webster Springs	do		.12		.25		.47	1.30	.37								T.	T.					.54	.28	.35	.50	.20	.20	T.			4.58
Wellsburg	Ohio	.06						.05									T.				.36	.05			.07		.27					0.86
Wheeling ‖	do		.12		T.			T.	.14									T.	T.		.45	.05	.05			.70	.70			.23		2.44
Williamson ‖	Big Sandy		.04		T.			T.	1.52	.02								.12		.12			.30	.12	.02	T.						2.26
Ohio.																																
Amesville	Ohio	.28						.30	T.														.95	.10	.04	.05						1.72
Ashland	Muskingum	.34			.23			T.										.18	T.		.80	.12				T.	T.					1.67
Bangorville	do	.46		.08	.03			T.										1.05	.05		.50	.05			.03	T.						2.25
Bellefontaine ‖	Great Miami		.42		.66			.29										.02			.02	.03	T.				.12					1.56
Bladensburg	Muskingum	.20						T.								.05		.68	T.		.48	T.			T.	.07						1.48
Brilliant	Ohio	T.						T.													.35	T.		T.	.20	.65						1.20
Cadiz	do	.25						.09										T.			.85	.06		T.	T.	.50	.07		.10			1.92
Cambridge	Muskingum	.23		.35				T.								T.	.28	.81			.90	.51				.12		.09				3.29
Camp Dennison	Little Miami	.08			.15			.10															1.07	.07	.02	.01						1.50
Canal Dover	Muskingum																															
Canton ‖	do		.08		T.			T.													.17		T.			.05	.20	.05				.55
Cardington	Scioto	.53		.06														1.85	.55		.53											3.52
Chillicothe ‖	do	.31																			.59			.64								1.54
Cincinnati	Ohio	.39		.13				.22										.37	.20			.81	.16	.01								2.29
Circleville ‖	Scioto		.53		.33			.07									T.	.13		.48	.10		.58	.27	.10	1.45	.11					4.15
Clarington	Ohio	.30						.10										T.			1.10	.20	.20		T.	T.	.25		T.				2.15
Columbus	Scioto	.39		.16			T.										.02		.56	T.	.04	.23	.04	T.	.12	T.						1.56
Coshocton ‖	Muskingum			.20	.15												.35	.45			.11	.37					.34	.02				1.99
Dayton (1)	Great Miami	.18		.79				.05									.03			.01		.45	.40	.44	.02	.30						2.67
Dayton (2)	do	.19		.73				.03									T.	T.				.05	.85	.18	.50	.22						2.75
Delaware	Scioto		.42		.20			T.	T.									.40	.31		.32	.02	.03	T.								1.70
Demos	Ohio	.14		T.	.01			.08								T.	T.				.62	.42			T.	.90	.11		.03			2.31
Dennison	Muskingum	.29						T.													.59	.03					.19					1.10
Frankfort	Scioto	.12			T.														T.		T.		1.65	T.	T.							1.77
Gallipolis ‖	Ohio		.18					.07	.65												.04		.38	.12		.03						1.47
Garrettsville	Mahoning	T.																			.57	.34				.32	.07					1.30
Granville ‖	Muskingum		.49		.12												T.	.50		.13	.32		.12		T.		T.					1.68
Gratiot	do	.48		.03				.12										.80	.02		.72		.28		.68	.30						3.43
Green	Ohio	T.	T.		.30			.40	.61										T.				1.22	T.								2.53
Green Hill	Muskingum	.07		T.				T.								.07		T.			.40	T.		T.		.09	T.					0.63
Greenville ‖	Great Miami		.58		.05			1.09											.03		.14		.29	.48	.11	.03	.07					2.87
Hamilton	do	.23		.07			.67											T.				.99		.51		.53						3.00
Haydenville	Ohio																															
Hillsboro	Scioto																															
Ironton	Ohio	.05						.44	.22														.61	.17		.01						1.50
Kenton	Scioto	.25		.21				.20										.35			T.			T.								1.01
Killbuck	Muskingum	.30		.04	.04														.05		.60	.02				.20						1.25
Kings Mills ‖	Little Miami		.23		.03			.22											.08				1.45	.13	.23		.04					2.41
Lancaster	Ohio	.28		.13				T.										.48	T.			T.	.58	.02	.42							1.91
McConnelsville	Muskingum	.27		T.	.08			.02								T.	.55	T.			.28	T.	.63	.01	T.	.01						1.85
Marietta	Ohio	.32			T.			.04									.23	2.00			.43	.21	.45	.60	.07	.59						4.94
Marion	Scioto	.90		.18	.10			.58										1.40	.28		.08	T.										3.52
Milfordton	Muskingum	.32		.35														.63	.19		T.	.02				T.						1.51
Milligan	do	.12			.10			.01										.24	T.		.23		.81									1.51
Millport	Ohio	.12						.03										T.			.54	T.				.03	T.					.72
Nellie	Muskingum	.36		.06												T.		.38			.92	.03										1.75
New Berlin	do	.10																			.25				.45							.80
New Waterford	Ohio	T.														.18						1.11										1.29
O. S. University	Scioto	.38		.15											.01	.45		.08	T.			.01	.02									1.10
Oregonia ‖	Little Miami																															
Pataskala	Muskingum	.50		.28				.05									.10		.15		.29	T.	.20			T.						1.57
Peebles	Ohio	.03			.14			.05	.10										.16		.01		.40	1.11		.01						2.01
Philo (1)	Muskingum	.24		T.				T.								T.		.52	T.		.50		.30			.08						1.64
Piqua ‖	Great Miami		.30		.06			.87												.04			.15		.17							1.59
Plattsburg	Little Miami	.31		.47												T.	T.		.19		.05		59	.02	.74							2.37
Portsmouth ‖	Ohio		.01		T.			.43	.26											T.		.02	.70	.13	T.							1.55
Prospect ‖	Scioto																				.10				.16	.45						2.18
Sidney	Great Miami	.34		.14	.03			.96										.22		T.	.13		.20	.03	.04	.03	.04					1.03
Somerset ‖	Muskingum		.22		.10				.02												.03		.44	.20	.47	.08						1.85
Springfield	Great Miami	.34		.08				.11								.10					.56	T.	.23	.01		.90						2.57
Summerfield	Ohio	.37						.26									.11	.13			.22	.21	.06	.16		.76						3.52
Syracuse	do	.57						1.47	.07												.27		.95	.15								1.95
Thurman	do	.25						.60	T.									.52			.45	T.	.31	.04								1.41
Toboso	Muskingum		.52		.10											T.					.98	.28				.32						1.29
Urbana	Great Miami	.32		.17												T.							1.56	.46	.04	T.						1.58
Warren	Mahoning							T.															1.15	.56	.70	.03						3.29
Waverly ‖	Scioto		.58		.28			T.	.16									T.		T.	.21					.02						3.70
Waynesville	Little Miami	.45		.20				.55										.06														0.97
Wooster	Muskingum	.18		T.	.05			.02													.65	.05				.02						1.68
Youngston ‖	Mahoning		.08													T.					.44	1.07	.01				.08					2.35
Zanesville ‖	Muskingum		.50		.25			T.	T.									.41		.01	.52	.10	.20		.06	.02	.28					
Indiana.																																
Anderson	W. Fork, White	.30					.03	.70										.11		T.	.02		.95	1.20	.10	.45						3.86
Attica ‖	Wabash							.07									.07				T.	T.	.49	.39	.40		.17				T.	1.59
Bloomington ‖	W. Fork, White				.28			.19	.15								T.		.36				.33	.11		.05	.06					1.53
Bluffton ‖	Wabash		.25															.04			.05		.04		.01	.65	.67					1.71
Butlerville	E. Fork, White			.10					.10								T.	T.		.08			.32	.07	.07							0.74
Cambridge City ‖	Whitewater		.93		.42			.50											1.07		1.80		.73	.91	.12	1.56	.20					7.17
Columbus ‖	E. Fork, White				.17				.11														.38	.03		.10						1.86
Connersville	Whitewater	.20			.39																		1.03	.78	.26	1.03						3.69
Crawfordsville	Wabash							.40								1.25							.96	1.15	T.	T.	1.57						5.33
Delphi ‖	do		.15					.07	.08									.26				T.		.20	.05	.26	.10	.06				1.23
Evansville	Ohio	.05		.06				.74	T.														.53	.02	.13	.02					T.	1.55
Farmersburg	Wabash						.02	T.													T.		.03	.29	.01	.86	.46					1.67
Farmland ‖	W. Fork, White		.44		.07			1.15											.03			.27		.59	.64	.67	.33	.09				4.28
Forest Reserve	Ohio			.08				.62	.79									.16	.04					.80	.60	.12						3.21
French Lick ‖	E. Fork, White		.07						.62															.62	.25	.09	.07			T.	.13		1.85
Greenfield	do	.62		T.				T.								T.					T.		T.	.60	.42	.50	.75						2.89

TABLE 2.—*Daily precipitation for June, 1913. District No. 3*—Continued.

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
***Indiana*—Contd.**																																
Greensburg	E. Fork, White							.04											1.47				.37	.03	.22	.13						2.26
Hickory Hill	W. Fork, White							.11	.54														2.35								2.03	5.61
Huntingburg	Wabash		.58																													
Huntington	....do	.18						.03										.40		.18	.30	.05			.14	.04						1.32
Indianapolis	W. Fork, White	.43		T.				.02								.01		T.	.03	T.		.41	.38	.49	.15	.43					T.	2.35
Jeffersonville	Ohio	.40	.05	.01			T.	.59	.67									.26	.12			T.	.47	.86	.52			T.				3.95
Judyville	Wabash	.07						.12								.03				.21		.32	.26	.23	.33	.06						1.63
Kokomo	....do	.33						.30										T.			T.	.21	.02	.64	T.	.34					.50	2.34
Lafayette [1]	....do	.28					T.	.25								T.	.05	T.			.02	.49	T.	.88	.12	.17				T.		2.26
Logansport [1]	....do	.15	.10					.17								.22					.10		.20		.10		.15					1.19
Madison	Ohio	.59		.05			T.	.43	.05										.08				1.31	.11	.02							2.64
Marengo	....do	.25		T.					.27														.40	.40					.10			1.42
Marion [1]	Wabash		.26					.08													.12		.22		.10	.05	.05					0.88
Mauzy	E. Fork, White	.50		.19				.01								T.						T.	.92	.46	T.	.53						2.61
Monticello [1]	Wabash		.34					.12	.05												.26		.26		.06		.35					1.44
Moores Hill	Ohio							.18										.01	.14			.23	.56	.05	.01							1.18
Mount Vernon [1]	....do		.13		T.				T.														.69	.12	.19							1.13
Nashville	E. Fork, White			.06																			.04		1.30	.07						1.47
Paoli	....do		.06	.16					.27														.46	.22	.26			T.	.01			1.44
Princeton	Wabash							.68															1.63	.35	.06						T.	2.72
Richmond	Whitewater	.54		.06			.48	T.										.23		.46		.52	.28	.45	.13	.06						3.21
Rochester	Wabash							.23													T.	.32	.02	T.		.01						0.58
Rockville	....do	T.					T.	T.								.68	.02	T.	T.	.03	T.	.80	.30	.25	T.	.13		T.				2.21
Rome	Ohio		.45	T.			T.							.09							T.	1.30	.51	.57	.03						2.95
Salamonia	Wabash	.72		.74				.78									T.	.03		T.	T.	.02	.05	.06	.56						2.96
Salem	Ohio		.06					.82	.49									T.				T.	1.29	.17	.12			.13			T.	3.08
Scottsburg	E. Fork, White			.26				1.00	.20											.10	T.		.65	.20	.25							2.66
Seymour	....do			.81				.09										.23	.29	.57		.25	.20	.07	.02						T.	2.53
Shelbyville	....do	.26		.27				T.								T.			.21			1.06	.07	.56	.06	.12						2.61
Shoals [1]	....do	.03			T.				T.														.34	.11	.15	.02						0.65
Terre Haute	Wabash						T.									.35		.10				.07	.47	T.	.02	.05						1.06
Veedersburg	....do						.12	.01									.07			.25		.75	.45	.20	.01	.16						2.02
Vevay	Ohio	.45	.10	.10				1.10										.50					1.25	.25								3.75
Vincennes [1]	Wabash		.05																				.45	.40	.20	.40			T.		T.	1.50
Washington	W. Fork, White		.05	.13																			.45	.25	.18				.12			1.18
Whitestown [1]	....do		.21					.45	.02								.22		T.		T.	T.	.52	1.14	.23	.02	.33					3.14
Winona Lake	Wabash	.06						.20									T.	.26		T.		.47			T.						.03	1.02
Worthington	W. Fork, White																T.		.08				.41	.19	.11						.05	0.84
Illinois.																																
Albion	Wabash	.46							.10														.65	.26	1.39					T.	T.	2.86
Casey	....do																					.15	.55	.05	.26	.05			.60			1.66
Charleston	....do							.01														.22	.18	.56	.10	.35						1.42
Danville	....do						T.	T.								.05		T.		.04		.61	.80	.62	T.	.30			T.			2.42
Equality	Ohio	.11					T.	T.	T.													T.	T.	.45	.06			T.	T.	T.	T.	0.62
Fairfield	Wabash	.12					T.	T.														T.	.75	.23	.38							1.48
Flora	....do	.13	.02				T.																1.17	.46	1.47							3.25
Golconda	Ohio							.41	.04														.16	.66							1.80	3.07
Hoopeston	Wabash	.07						.17								1.00		T.				1.00	.28	.30	.18	.28				T.		3.28
McLeansboro [1]	Ohio		.35		.05																		.56	.15		.46						1.57
Metropolis	....do				.02				.32														.09						.40	.44		.85	2.12
Montrose	Wabash						T.														T.	.17	.39	.22	.42	.01			.06			1.27
Mount Carmel [1]	....do		.30		.22				.10														.80	.52	.02	.62			T.			2.58
New Burnside [1]	Ohio				.20																		.25	.07	.07	.07						0.66
Newton	Wabash		T.				.19																.36	.15	.38	T.				.04		1.12
Olney [1]	....do		.05						T.														.30	.50		.63						1.48
Palestine	....do	T.																					.77	.13	1.13	.33						2.36
Paris [1]	....do																					T.	.30	.46	.10	T.	.09				T.	0.95
Philo	....do							T.														.49	.87			.14				.14		1.64
Rileyville	Ohio		.10	T.			T.	.10															.32	.06	1.06						.84	2.48
Shawneetown [1]	....do	.12	.14						1.00														.60		.07							1.93
Tuscola	Wabash						T.	T.													T.	.17	.44	.10	.02	.40			.15		T.	1.28
Urbana	....do							T.								T.				.06		.39	.50	.01	.34	.13				.30		1.73
Kentucky.																																
Alpha	Cumberland	2.40		.30	T.		T.	.55	T.													.85	.64	T.				T.			4.74
Anchorage	Ohio	T.	.90					.17	.50									.01	T.			T.	.40	.30	1.01			T.				3.29
Bardstown [1]	Salt		.48		.21			.37	1.92														.10	1.06	.24	.11						4.49
Beattyville [1]	Kentucky		1.68		.54														1.24	.68			.40	.58	.52	.14						5.78
Beaver Dam [1]	Green		.30		.34			.18															T.	.32	.44							1.58
Berea	Kentucky	.40	.86					.26	.11									.40		.07		.01	1.03	.16					T.			3.30
Blandville	Mississippi			T.			.02	.05	.04														.21	.02					T.	.04	.16	0.54
Bowling Green [1]	Green		.03					.03	.15	.30													.75		.35	1.25						2.86
Burnside [1]	Cumberland		.50		T.			.35	.07											T.				.20	.18	T.			T.			1.30
Calhoun	Green		.06	.51			T.	.17	T.											T.	T.	T.	1.59	.15	T.			.02			T.	2.50
Catlettsburg [1]	Big Sandy				.10			.30	.56														.56	.96	.02	.20						2.70
Earlington [1]	Green		.32					T.	.31															.21	.40						.95	2.19
Edmonton	....do		.87	.24			.48	.98	.32														1.36	.22	T.				.06		T.	4.53
Eubank [1]	Cumberland		.40					.77	.25											1.50				1.40	.55							4.87
Falmouth [1]	Licking		.33		.03				.27										.04				1.04	.15	.09	.08						2.03
Farmers	....do	1.00	.15																					.05		.41						1.61
Frankfort [1]	Kentucky	T.	.79					T.	.48	T.									T.				.60	.10	.06	.05						2.08
Franklin	Green			T.	.20		.16												.04		1.40		.08	.32								2.20
Greensburg [1]	....do		.23		.75			.70	1.05													.75	.40	.03	.10					.13		4.14
High Bridge [1]	Kentucky		.45					.08	.29										.09	.95				.45	.28							2.59
Hopkinsville [1]	Cumberland							.10	T.	.10													.20		.12							0.52
Irvington	Ohio		.48	.06			.10	T.	.28													.18	.48	1.52	.01				T.			3.11
Leitchfield	Green	.20		.38			.10	.51														.05	.37	.49				1.52			.55	4.17
Lexington	Kentucky	1.16		T.			.01	1.12	.07									T.	.01			T.	.59	.13				.20				3.29
Loretto	Salt		.78	.16				.41	.03												T.		24	1.03	.37				T.			3.02
Louisa [1]	Big Sandy							.29	.96								10						.36	.12								1.83
Louisville (1)	Ohio	.23		.01			T.	.69	1.01									.16	.12	T.	T.	.28	.16	1.00	.89			T.	T.			4.55
Do. (2)	....do		.47	T.					2.16										.20			T.	.35	1.32	1.13			.05	T.			5.68
Marion	....do			T.			T.	.24	.31														.28					T.			.12	0.95
Maysville [1]	....do		.25		.29				.24										.05			T.	.81	.07	.05							1.76
Middlesboro	Cumberland		.62		.43	.02		.06	.33	.03									.15			.06		.37								2.07
Mount Sterling [1]	Licking		.90		T.			T.	.20	T.										.62			.38	.24	.32	.09			.42			3.17
Owensboro [1]	Ohio		.26	T.					.77												T.		.30	.23	.12							1.68
Paducah [1]	....do								.20	T.													.18	.02					T.			0.40

TABLE 2.—*Daily precipitation for June, 1913. District No. 3*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Kentucky—Contd.																																
Pikeville	Big Sandy		.25		.10			.75	.35	.10								.05		1.00			.25	.35	T.	T.						3.20
Richmond	Kentucky	T.	1.08		.20			T.	.05	T.									.08	.56			.03	.42	.25	.32						2.99
St. John	Salt		.35		.30			.11	.05														.90	.99	.35							3.05
Scott	Licking	1.37		.08				.20	.07									T.	.52		T.		1.31	.05	T.	.01						3.61
Shelby City	Kentucky	.11	.47	T.				.31	.07										T.					1.05	.24							2.25
Shelbyville	Salt		.75					.21	.60										.10				.70	.65	.80	.50						4.31
Taylorsville	do	T.	.51	.34			.08	.26	.53										T.			.07	.49	.60	.02			T.			2.90
Williamsburg	Cumberland		1.05		.75			.63												.62		.37		.30	.15	.06	.05	.03				4.01
Williamstown	Licking				T.				.26										T.				.95	.17	.05	T.						1.43
Tennessee.																																
Ashwood	Tennessee	.30	T.			.25	.35																					T.				0.90
Benton	do	.85	.18	T.	T.			.69	.82	T.												.20	T.	T.			.15					2.89
Bird's Bridge	do		.33		.39	.19	.18	.33	1.66	.21	.09									.60												3.98
Bluff City	do	.11	.71		.04	.27		.19	1.51	.19	.04		.07							T.			.16		.38			.04				3.71
Byrdstown	Cumberland		.96	.10				.10	.13																		.10					1.39
Carthage	do		T.		.02			1.67	.68													T.		2.40	.01							4.78
Cedar Hill	do				T.			1.20	1.00														T.	T.	T.			T.			.20	2.40
Celina	do		1.23		.07			.63	.68	T.														.09	.03			46	T.	.22		3.41
Charleston	Tennessee		1.50	T.	.23		.04	.25	1.20		.03									.15		.04		.08	.11							3.63
Chattanooga	do		.47		.24	.76		.96		.10	.04								.09			1.10	.08					.09		.20	4.13
Clarksville	Cumberland				.11			T.	T.															.76						1.44	2.31
Clinton	Tennessee		.40		.16				.20											.88			.32	.08								2.04
Crossville	do		.66	.29	.09			.15	.12	T.									T.				.02									1.33
Dandridge	do		.28		.06				.34	.40	.06								.30					.80								2.24
Decatur	do	.11	.44	.46	.03			.93	.10	T.									T.	.42							.36				T.	2.85
Dickson	Cumberland	.46					1.10																									1.56
Dover	do			T.	T.				.20															.16								0.36
Dunlap	Tennessee		.02	.03	.01		.09		.21													.03	.87				.03	.02				1.31
Elizabethton	do	.12	.50			.03		.20	.05	.95			.07						.02					.14				12				2.20
Erasmus	Cumberland		.66	.22	.51			T.	.36												.03		.49	T.	.45		T.	.44	.02			3.18
Florence	do		T.		.34		.02	.64	.03														.74	.14	.07				.20			2.18
Franklin	do	.47	T.		.36			.82																								1.65
Hall's Hill	do			.20	.35	.05		2.25	.32														T.	1.59				T.				4.76
Hohenwald	Tennessee	.75					1.30	.35															.21	.10	.05	.11		.05				2.92
Iron City	do	.94	.60	.25	.06			.96																				.08				2.89
Jefferson City	do		.44	.16	.16		.22	.16	2.92	.08									.12				.29									4.55
Johnson City	do		.98		T.	.14		.03	1.04	T.			T.						.18	.98			T.									3.47
Johnsonville	do						.18	.01	.54												.13			.27					.50		T.	1.63
Kingston	do		1.46		.40	.06			.13											.53			.33		.18					.01	T.	3.10
Knoxville	do	.08	.09	.22	T.		T.	.44		.02									.03				.20	.20	.01				T.	.27		1.56
Lebanon	Cumberland		T.	.20	.11		.70	.18	.57	T.											.55		T.	.17	T.							2.48
Lewisburg	Tennessee	1.19	.97	T.				2.26	.35																							4.77
Liberty	Cumberland			.25	.40			1.45	.75														.83						.78			4.46
Loudon	Tennessee		1.26		T.				.28															.58	.11					T.		2.23
Lynnville	do		.41			T.		1.10	2.11																			36	T.			3.98
McGhee	do		.98						.16	.26										.14			T.	.22							T.	1.76
McMinnville	Cumberland	.70		.90		.03		.63	1.20													1.55	.98									5.99
Maryville	Tennessee																															
Mountain City	do		.38		.11			.03	.84	.10			.32						.21				.25		.35	.07	.16	.02	.14			2.98
Nashville	Cumberland		T.	T.	T.	.07	.29	T.	T.										.20		.03			T.			.03			.28		0.90
Newport	Tennessee		.68		.04	.20	1.05	.06	.30	.54	.16									.53													3.56
New River	Cumberland		.52		T.		.14		.25														.57		.82							2.30
Palmetto	Tennessee		.44	T.	.40	T.	.40	2.00	.86													.21										4.10
Perryville	do						1.09	.16												.27	.13											1.65
Pinewood	do	.85					1.50	.10													T.										T.	2.45
Rogersville	do		.47		.04	.98	.01		.17	.10	.02									.39				T.	.47		.20		T.			2.85
Rugby	Cumberland	.50	.68	.03					.05											.07			1.30									2.63
Savannah	Tennessee			.10	.26		1.75	.12															T.						.80			3.03
Sevierville	do		.36		.15		.20	.15	.10	.06									.36	.07		.01		1.10								2.56
Sewannee	do																															
Sparta	Cumberland		.10	.46					.98													.05	.30				.44	.05		T.		2.38
Springville	Tennessee						.18		.35															.53		.33			.05		.26	1.70
Tazewell	do		.47			.37		.06	.70											.61				.25	.05							2.51
Tullahoma	do		.07		T.		T.	1.13	.20														T.							T.		1.40
Walling	Cumberland			.08	.02	.30		.30	1.05														.17	.25					1.00	.30		3.47
Waynesboro	Tennessee	.55	T.	.34	.05		.68	.19															.38	T.	.10	T.			.07			2.36
Wildersville	do			.12															T.										T.		1.90	2.02
Worsham	Cumberland				.61		.39																	.07	.60			.02					1.69
Yukon	Tennessee	.55	.65	.22	T.	T.	T.	1.37			.05											T.							T.	.10		2.94
Alabama.																																
Bridgeport	Tennessee	.36		.45	.02				.09													.04	.38	.14					.35	.15	1.98
Decatur	do	.43		.70	.33	.01		.58	.02											.06		.04	1.71	.11						.26	4.25
Florence	do	.14	1.68	.58	.04		.65	2.88													T.								.04	.11	.70	6.82
Guntersville	do	.05			.04	T.	.06	.04	2.45	T.												.38								.30	.10	3.42
Madison	do	.62						.60	.80														1.36								.50	3.88
Riverton	do			.02	.51			2.12	T.																							2.65
Scottsboro	do			.22	.02	.60		.05	1.04	.04												.48	T.	T.	.01	.01	.02		.11		T.	2.60
Tuscumbia	do			.80	.28			2.90	.03																					.20	1.00	5.21
Georgia.																																
Diamond	Tennessee	T.	1.05	T.	.07	.87	T.	.18	.78	.01										T.	T.	.52	.28					12		1.49		5.37
Mineral Bluff	do			.60		.90	.70	1.00		.50																			.40	.40	.30	4.80
North Carolina.																																
Altapass	Tennessee				T.			1.30	T.	1.50									T.	.50				1.05				T.		T.	T.	4.35
Andrews	do		.25		.02	.20	.02	.48	.71	.64	.01									.10							.24			.29			2.96
Asheville	do	.30	.01	.14	T.		T.	.97	.06	.18		T.							.56				.25	.03	.01		T.	.03	.08	.28		2.90
Banners Elk	do			1.55				.52	.32										T.			.46					.50			.10		3.45
Blantyre	do			T.	.10		.10	.36	.20	.10									.10			.10		T.	.10				.10			1.26
Blowing Rock	Great Kanawha		.89	.10				1.03		.33			.19						.36					.23								3.13
Bryson City	Tennessee						.36			1.38	.24								.37				.26					.29				2.90
Cane River	do		.38		.15		.07	.97	1.02	.45			.03							.13	.19	.02		.25	.47	.09					.55	4.77
Cullowhee	do		T.		.08	.02	.08	.27	.11	.43									.27	.10			.49	T.			.71	.01	.17	.19		2.93
Eagles Nest	do				.52	.65	T.	.20	1.10	.60									1.30			.35	3.20		1.45		T.		.70	.15		10.22
Ellijay	do		.05			.11	.26	.56	.61	.15	T.								.42	.27		T.						.06		.06	.13		2.69
Hendersonville	do																	.01														

TABLE 2.—*Daily precipitation for June, 1913. District No. 3*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
North Carolina—Con.																																
Highlands	Tennessee				.05		.48	2.45	.50	.45									.37		.10	1.05				1.52	1.37	.30				8.64
Hot Springs	do		.07	1.08	.05		T.	.37	1.37	.18									.15					1.34	.38			.78		.18	5.95
Jefferson	Great Kanawha																															
Marshall	Tennessee	T.	.12	T.	.11			.68	1.24		.15									.29					.15	.16	.05				.38	3.33
Murphy ‖	do		.17		.03		1.51	.26	1.52	1.04	.05									.25											.05	4.88
Rock House	Savannah	T.		.18	T.	1.18	.39	1.73	2.35	.22								T.	1.17	T.	1.08	.02	T.		1.05			.17	.06	.83		10.43
Transon	Great Kanawha	.07	.34	.20				.60	1.00	.10			.70						.21		T.			.77								3.99
Waynesville ‖	Tennessee		T.			.34	.12	.28	1.55	.43	.12									.40			.19	.10		.05	.06		.10		.06	3.80
Virginia.																																
Blacksburg	Kanawha		.08								1.10	.50			.46			.05	.02				.05	.87	.06	1.03		.02	.34			4.15
Burkes Garden	Tennessee				.43			.40	.36	T.			.56					.50	T.	T.			.45	1.10	.30							4.10
Elk Knob	do		.61		.13			.57	.20	.09									.12				.16	.34								2.22
Emory	do																															
Ivanhoe ‖	Kanawha		T.		.12	.02	T.		.20	.10	.10		.60	T.				.16	.03	.50				T.	.08	.30		.30	T.	.05	T.	2.56
Max Meadows	do				*		.25	.50		.05		.38	.52					.35	.48				1.25	.12		1.02	T.					4.92
Mendota ‖	Tennessee	.40	.22		.42	.80		.27	1.15	.06								.20					.36	.45	.15							4.48
Mountain Lake	Kanawha			.82	.07			1.20	.53				.58					.25	.36				T.	1.18	.04	1.20						6.23
Radford ‖	do								.58	.40			.58											.98	.32							2.86
Speers Ferry ‖	Tennessee		.67			.16				1.00	.12													.10	.22							2.27
Wytheville	Kanawha				.06			.21	.38	.03		.19	.34					.28	.33				.28	.11	.61		.02	T.				2.84

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for June, 1913. District No. 3, Ohio Valley.*

Date.	Pennsylvania.				West Virginia.														Ohio.							
	Greenville.		Pittsburgh.		Charleston.		Elkhorn.		Elkins.		Glenville.		Huntington.§§		Morgantown.		Parkersburg.		Wheeling.§§		Canton.§§		Cincinnati.		Columbus.		Dayton.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	83	47	80	55	80	54	80	51	84	44	80	54	84	56	80	51	84	55	84	51	82	48	85	65	83	61	81	62
2....	75	44	75	58	76	62	80	60	80	57	86	48	78	64	78	60	80	63	83	58	77	48	79	65	76	56	78	60
3....	83	41	81	54	85	61	80	56	83	52	88	45	87	61	83	52	86	57	87	51	84	47	86	62	85	58	84	58
4....	77	49	72	56	86	64	77	60	77	52	89	47	81	63	77	58	75	59	80	53	70	50	75	61	72	55	73	55
5....	74	36	75	48	84	52	80	52	82	43	88	44	86	51	74	42	78	51	80	40	74	41	79	57	76	52	78	53
6....	90	44	87	61	89	60	78	58	86	52	92	53	90	54	88	60	90	58	93	44	90	48	90	59	89	59	88	60
7....	70	46	76	52	88	66	73	59	76	57	88	54	79	58	.....	.....	81	56	73	50	67	61	77	52	74	48	75	50
8....	59	38	62	46	75	50	62	56	68	47	86	51	72	52	.....	.....	66	49	72	49	62	41	65	48	62	43	63	45
9....	62	30	63	43	69	47	59	50	62	41	82	39	69	47	83	41	64	44	71	43	62	36	65	43	63	39	63	40
10....	69	29	69	43	68	43	63	40	65	34	76	38	71	46	67	40	68	45	74	39	69	35	70	46	69	42	68	43
11....	75	33	74	46	72	43	63	38	72	34	78	40	72	45	70	40	74	44	77	42	76	37	76	52	75	46	76	47
12....	81	36	80	49	80	52	72	48	75	46	80	46	82	51	77	46	79	51	84	44	81	40	83	53	79	51	80	50
13....	84	41	82	50	82	50	76	43	78	39	88	42	87	50	81	46	84	48	87	46	85	43	88	55	84	55	85	53
14....	86	48	85	60	87	54	82	47	82	46	90	51	91	53	85	52	88	54	92	50	89	50	90	58	89	57	89	67
15....	91	46	88	64	90	57	84	50	88	47	92	55	92	56	88	56	91	58	94	53	92	52	90	62	90	62	90	64
16....	95	59	92	72	84	60	85	53	85	58	94	56	91	62	89	69	90	69	97	59	96	62	96	73	94	69	96	69
17....	85	63	85	69	92	65	84	60	83	60	92	60	92	70	87	64	89	70	94	69	88	61	95	73	90	67	92	68
18....	84	49	84	64	91	66	84	60	85	56	92	61	91	75	86	58	87	67	90	58	88	55	92	69	88	63	91	70
19....	90	50	89	62	91	64	85	58	87	55	93	64	91	62	89	60	93	60	94	56	93	55	94	65	94	64	94	66
20....	91	62	90	64	94	65	88	60	89	58	95	70	95	67	89	64	94	70	93	67	93	65	96	75	95	70	93	73
21....	75	56	80	61	93	67	86	65	87	63	96	70	93	69	88	62	90	70	85	68	81	66	93	66	81	62	86	63
22....	79	46	80	58	92	67	86	61	71	62	91	65	79	66	74	64	70	62	83	62	80	45	72	64	73	60	73	60
23....	85	46	78	66	81	67	84	62	73	64	90	63	81	69	80	64	81	66	81	64	86	50	82	68	80	62	79	64
24....	90	61	83	67	85	68	81	62	80	63	88	67	85	68	85	64	85	70	82	66	90	62	88	71	84	69	85	68
25....	87	61	87	67	91	69	84	61	86	64	92	65	90	68	.....	.....	91	68	94	68	90	67	90	70	90	69	88	68
26....	91	66	90	67	93	70	87	61	87	63	95	65	95	69	89	65	94	68	96	68	95	62	96	73	94	71	91	72
27....	91	63	91	73	93	72	87	63	89	64	95	66	95	71	90	71	94	72	98	70	96	66	97	75	96	74	94	74
28....	87	68	89	72	94	70	86	63	89	65	97	68	96	74	91	67	94	72	95	69	93	69	98	77	96	75	96	74
29....	87	53	89	66	94	72	85	64	89	65	94	65	94	73	89	67	91	71	94	67	91	59	95	77	94	69	95	72
30....	94	57	93	70	94	72	90	65	92	63	96	67	95	69	94	68	97	69	97	63	98	60	98	74	98	66	98	70
Mns..	82.3	49.0	81.6	59.4	85.8	61.0	79.7	56.2	81.0	53.8	89.4	56.0	86.1	61.3	83.4°	57.4°	84.3	60.5	86.8	56.2	83.9	52.7	86.0	63.6	83.8	59.8	84.1	60.9

Date.	Ohio.				Indiana.										Philo, Ill.		Kentucky.									
	Marion.		Waverly.§§		Butlerville.		Evansville.		Indianapolis.		Kokomo.		Rockville.		Worthington.				Beattyville.§§		Bowling Green.§§		Earlington.§§		Greensburg.§§		Lexington.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	82	58	85	56	90	67	95	72	86	67	78	64	92	66	92	67	88	65	89	57	97	65	98	71	95	60	87	63
2....	73	52	81	62	84	63	86	69	79	62	80	54	88	67	87	65	86	61	86	59	92	64	93	66	89	64	79	63
3....	63	49	85	54	85	59	87	70	86	61	82	58	88	61	91	64	87	59	84	60	90	65	93	67	88	73	83	63
4....	74	50	75	59	80	55	85	64	76	55	76	51	83	52	83	56	82	51	86	60	89	64	90	66	85	63	76	60
5....	82	45	78	45	83	54	87	63	81	57	79	53	86	58	86	60	88	57	85	53	92	60	94	63	88	59	79	54
6....	92	54	88	51	90	61	91	68	90	62	89	60	97	63	94	66	96	66	90	56	93	64	95	67	87	64	85	65
7....	80	52	80	62	83	60	85	61	76	54	79	56	80	58	84	62	76	49	81	64	89	64	90	67	78	65	75	56
8....	63	41	67	49	67	48	69	54	63	44	64	38	69	44	72	55	69	41	69	52	68	55	67	55	68	54	65	48
9....	66	38	65	40	66	41	67	48	64	42	66	38	68	41	69	45	68	39	69	47	71	49	72	52	68	49	63	45
10....	67	37	69	40	71	42	72	50	69	44	72	36	76	43	76	45	74	43	71	42	75	46	78	48	70	47	67	45
11....	79	37	75	40	78	43	76	51	76	50	77	38	81	44	80	43	79	42	71	39	80	45	82	42	77	41	71	49
12....	83	42	82	42	84	42	84	56	81	52	80	42	88	43	86	43	86	40	82	45	84	40	87	45	82	44	77	53
13....	86	46	86	44	90	45	87	59	88	60	85	48	92	46	91	48	90	46	88	44	90	50	91	47	89	46	83	60
14....	92	51	90	48	90	51	89	62	89	61	82	52	94	51	93	51	93	49	92	48	96	52	95	51	91	50	87	63
15....	92	61	90	52	92	62	92	65	91	65	91	66	99	62	96	60	98	63	90	52	97	55	96	56	92	52	88	63
16....	96	68	92	60	96	66	95	68	96	71	96	65	100	62	101	66	101	69	95	53	99	60	100	57	96	57	90	69
17....	90	61	94	63	99	62	100	71	95	72	94	62	99	66	100	65	100	64	97	57	100	60	103	59	100	58	93	67
18....	87	60	91	64	97	64	99	75	91	72	90	62	96	65	94	68	98	66	92	64	99	62	104	65	97	63	91	65
19....	96	61	92	58	96	63	99	76	96	69	93	62	100	66	98	70	99	71	92	60	101	65	105	67	97	61	91	63
20....	93	66	94	62	95	70	97	74	92	72	92	64	95	64	97	67	98	63	94	61	101	66	103	70	98	63	93	70
21....	88	66	91	66	96	67	96	72	90	65	81	61	95	67	96	71	95	68	93	64	100	69	98	72	93	66	91	71
22....	86	52	70	60	87	66	81	72	67	63	75	57	70	63	78	69	70	62	83	66	91	66	89	69	87	67	79	65
23....	85	51	80	61	84	65	82	70	81	66	79	61	85	67	79	69	87	67	83	64	88	66	89	67	86	67	75	66
24....	90	66	87	66	87	63	88	70	84	69	84	64	87	68	78	70	80	68	89	63	90	65	94	70	91	67	87	67
25....	90	68	91	67	91	69	91	73	88	69	86	56	92	69	89	70	86	70	92	62	94	65	96	72	92	67	89	68
26....	95	68	94	65	96	72	97	74	92	72	88	68	96	66	93	69	91	65	96	66	96	68	101	68	98	67	94	74
27....	98	68	95	70	100	70	97	77	95	76	82	67	100	70	97	64	96	69	96	67	96	71	103	73	99	69	92	71
28....	97	70	95	69	100	70	99	74	96	80	96	70	99	73	96	71	98	75	95	69	98	73	103	70	100	71	94	76
29....	94	66	92	70	100	70	100	78	96	76	97	68	99	74	98	75	98	74	94	70	100	73	107	69	101	70	94	74
30....	103	60	96	63	102	67	98	79	97	77	96	69	99	75	95	75	98	72	95	65	101	73	102	77	101	72	95	74
Mns..	85.4	55.5	85.0	56.9	88.6	59.9	89.0	67.2	85.0	63.5	83.6	57.0	89.8	60.5	89.0	62.3	88.5	59.8	87.3	57.6	91.9	61.3	93.9	62.9	92.8	62.9	83.8	63.0

TABLE 3.—*Maximum and minimum temperatures for June, 1913. District No. 3*—Continued.

Date.	Kentucky.						Tennessee.														Decatur, Ala.§§		Asheville, N. C.		Virginia.			
	Louisville.		Maysville.§§		Williamsburg.§§		Chattanooga.		Johnson City.§§		Knoxville.		Nashville.		Palmetto.		Sparta.		Waynesboro.						Blacksburg.		Wytheville.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	93	68	91	56	91	58	88	64	92	66	89	63	91	68	89	69	92	63	91	64	90	64	84	57	83	50	82	53
2....	85	67	83	59	88	60	90	64	91	60	80	63	87	69	88	66	89	64	93	65	94	68	80	59	80	63	80	60
3....	84	65	89	59	86	64	86	62	86	61	85	65	86	66	83	64	89	63	87	65	87	65	81	60	83	56	82	58
4....	81	62	79	59	88	61	86	66	82	62	83	63	86	67	83	66	88	62	87	65	84	63	81	60	80	61	79	58
5....	83	59	84	47	88	60	87	65	88	57	87	62	87	67	87	73	88	60	88	63	89	65	80	57	78	52	82	53
6....	87	66	93	53	89	63	81	70	83	65	84	68	85	68	83	66	86	70	86	67	85	69	77	63	82	54	80	58
7....	80	56	82	55	88	68	83	68	88	62	80	69	84	68	81	68	84	66	83	66	85	67	76	63	86	50	80	60
8....	67	50	70	49	75	60	85	65	72	65	79	62	71	60	75	62	76	63	78	63	86	66	77	55	68	53	71	52
9....	65	47	69	42	67	53	65	56	54	50	62	55	72	56	72	58	67	59	72	57	66	61	55	48	59	47	57	49
10....	70	48	72	43	71	42	69	55	62	46	69	52	73	54	71	56	74	48	74	55	73	58	61	48	58	38	61	37
11....	76	48	78	41	75	41	72	51	62	42	70	50	75	54	71	56	75	45	74	44	73	56	59	46	60	35	58	36
12....	81	54	84	44	80	43	78	50	70	45	77	48	81	50	79	48	78	45	80	43	79	48	70	46	73	46	71	46
13....	88	57	88	46	86	43	86	56	79	45	83	50	86	53	83	48	85	47	85	45	79	51	77	47	79	45	76	54
14....	90	65	92	50	92	47	90	57	85	48	89	54	90	56	86	52	90	49	88	48	89	52	83	51	83	48	82	53
15....	91	67	94	52	95	50	92	61	86	52	92	57	91	59	89	54	92	50	90	50	90	58	85	52	86	46	86	50
16....	95	74	99	61	94	51	95	63	87	53	92	59	93	61	90	56	93	51	92	51	93	58	86	54	85	53	86	57
17....	98	74	98	64	98	58	95	64	87	51	95	65	97	63	93	60	95	52	94	54	94	58	88	61	88	62	87	60
18....	93	70	97	66	95	60	96	66	81	62	93	68	98	67	96	71	95	59	99	58	98	61	87	62	81	58	85	60
19....	95	70	98	61	95	60	91	65	88	50	90	64	96	69	90	67	96	62	95	63	94	67	85	58	87	56	86	57
20....	96	77	100	64	95	62	94	69	87	64	94	69	95	68	94	65	96	63	96	63	97	67	88	63	90	58	88	59
21....	94	68	96	67	94	64	92	64	95	64	94	71	94	72	93	66	95	63	95	64	96	72	86	62	88	62	87	65
22....	81	68	81	66	90	66	89	67	83	67	90	68	92	70	91	67	90	66	94	65	87	67	86	64	84	60	81	64
23....	79	67	82	66	86	62	90	64	87	66	88	67	90	70	91	69	91	65	92	65	91	66	83	61	81	63	81	63
24....	88	66	92	67	90	64	89	69	92	62	91	66	92	68	92	68	93	65	93	65	92	68	84	60	83	63	82	61
25....	90	71	95	66	94	66	92	69	93	61	93	69	94	70	94	70	95	66	94	65	93	68	86	62	86	62	86	60
26....	95	74	98	66	97	65	94	73	97	62	94	70	96	72	96	69	99	69	97	65	96	71	87	63	88	59	88	60
27....	95	75	99	69	97	67	93	73	94	67	95	72	97	74	97	72	93	68	97	67	94	71	88	65	88	62	87	62
28....	96	76	99	69	98	68	95	72	95	67	94	72	96	74	96	70	97	66	97	68	98	72	89	65	90	63	89	67
29....	100	76	97	70	100	68	98	73	96	67	95	73	100	75	98	69	95	69	99	66	98	72	88	65	82	66	86	65
30....	97	77	101	72	100	70	93	69	97	70	94	72	98	76	96	70	95	68	96	70	92	69	84	66	86	61	88	64
Mns..	87.1	65.4	89.3	58.3	89.4	58.8	87.8	64.3	84.6	58.6	86.7	63.5	89.1	65.5	87.6	63.8	89.0	60.2	89.5	60.3	87.4	63.9	80.7	58.1	80.8	55.1	80.5	56.7

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 4, THE LAKE REGION.

J. H. ARMINGTON, Acting District Editor.

GENERAL SUMMARY.

Great extremes of temperature, deficient precipitation, and a remarkably large number of clear days with consequent high percentage of sunshine characterized the weather in the Great Lakes region during the month of June, 1913. The first decade of the month brought low temperatures which equaled or exceeded the previous June records of minimum readings for the past 40 years at many points throughout the entire district, while the closing days of the month, particularly the 30th, gave high temperatures which in turn equaled or exceeded the highest June maximums in former years. At a few stations in Indiana and Ohio both maximum and minimum temperature records were broken during the month—an unusual occurrence.

The precipitation was unevenly distributed and fell almost entirely during local thundershowers, which were quite frequent, Erie, Pa., reporting a total of 12, and many other stations experiencing from 7 to 10. A number of these storms were destructive to property and they will be touched upon briefly in another paragraph. As might be expected from the great number of clear, sunshiny days which in the central sections exceeded all previous records, the relative humidity was much below the normal; and this fact still further accentuated the deficiency in rainfall as the evaporation of moisture from soil and foliage was rapid, and combined with the intense heat during the latter half of the month, caused considerable damage to all kinds of vegetation in many sections.

The following table summarizes the chief features of meteorological interest in the various portions of the district:

Portions of States.	Mean temperature.	Departure from normal.	Mean daily range.	Mean precipitation.	Departure from normal.	Greatest precipitation in 24 hours.	Mean snowfall.	Number of days.				Prevailing wind direction.
								With .01 inch or more.	Clear.	Partly cloudy.	Cloudy.	
Minnesota	59.6	+1.5	21.0	2.54	−1.92	1.07	0	8	16	10	4	ne.
Wisconsin	65.7	+2.3	20.0	2.94	−0.34	3.25	0	8	19	7	4	sw.
Illinois	70.5	+4.2	17.0	1.08	−2.58	0.62	0	6	17	8	5	sw.
Indiana	70.7	+2.1	23.4	0.89	−2.75	0.80	0	5	21	6	3	sw.
Upper Michigan	62.2	+3.2	21.6	3.15	+0.20	2.10	T.	7	18	6	6	s.
Lower Michigan	67.0	+1.9	21.8	1.91	−1.09	1.63	0	5	19	7	4	sw.
Ohio	68.9	+0.6	18.7	1.64	−2.09	1.81	0	6	20	7	3	sw.
Pennsylvania	65.9	−1.1	16.2	2.79	−0.96	0.98	0	9	17	11	2	w.
New York	63.2	−1.0	20.4	2.32	−1.47	2.90	0	9	18	9	3	w.
Vermont	61.2	−3.1	25.8	2.42	−1.25	1.32	0	8	11	15	4	s.

TEMPERATURE.

Over all portions of the district the first half of the month, with the exception of the 1st and 6th, was marked by temperatures much below the normal; and light to heavy, and in many instances killing frosts occurred on the 8th, 9th, and 10th. In the central and eastern sections this cold period was the most severe, and minimum readings as low as or lower than any previously recorded for the month of June were reported. Temperatures but slightly above freezing were general over Indiana, southern lower Michigan, and Ohio on the mornings of the 9th and 10th, where light to heavy frosts were reported, doing considerable damage to fruit and other vegetation. In the interior portions of New York State and especially along the southern limits of the district, this cool wave caused still lower readings, Perry and Angelica each recording the unseasonably low temperature of 26° on the 9th. It was in this section of the State that killing frost formed, and farm and garden products in many localities were entirely destroyed by the unusual freeze, which is reported as the most extensive that has occurred in June in that State for 40 years.

Beginning with the 12th, warmer weather set in over the entire district, and temperatures of 90° and over occurred in the southern sections on the 15th and 16th. This warm period continued without interruption of consequence over the western and central portions until the end of the month; but in the east the temperatures were nearly normal or slightly above, and no extreme warmth was experienced except on the 30th, when maximum readings of from 92° to 95° were reported from most stations.

During the last week of the month, maximums above 95° were of almost daily occurrence over Illinois, Indiana, Ohio, and southern Lower Michigan, and records for high June temperatures were broken at many points in this area. Adrian, Mich., recorded the highest temperature, 103°, on the 16th, and in Ohio the highest readings were reported from Antwerp and Findlay, 102° on the 30th, while 100° or over occurred on the same day at six other stations. In Indiana the reading of 101° at Berne, on the 30th, was the highest, while at Chicago, Ill., the maximum of 99° on the 30th exceeded all previous June records for the past 43 years. On the 28th, while high temperatures prevailed generally throughout the district, Duluth, Minn., experienced one of the coldest June days in years. The average temperature was 48°, the maximum during the day being only 52°, and artificial heat was needed in buildings.

For the month as a whole the temperature averaged generally above the normal over all that portion of the district lying west and northwest of central Ohio, while to the eastward a deficiency prevailed, gradually increasing to a maximum of −4.2° at Enosburg Falls, Vt. The largest positive departures occurred in the interior of the Upper Michigan Peninsula, where they exceeded 5.0°.

PRECIPITATION.

The precipitation of the month may be roughly considered as falling in three periods, from the first to the 7th, from the 14th to the 21st, and from the 24th to the 30th, there being practically no rain in any portion of the

district during the second week. The daily amounts were not large and heavy, and widespread rains were infrequent. With the exception of a few stations in the north-central portion, the total precipitation for the month was considerably below the normal. In Indiana and Ohio the month was one of the driest Junes on record and at no station did the total amount exceed that usually received. In the former State, at Howe and Hammond, there was no rain of consequence during the first and second decades, the total amounts up to that time being trace and 0.05 inch, respectively. At Lima, Ohio, but 0.36 inch of rain fell and at 6 other points the monthly fall was under 1 inch.

STORMS.

On the 16th a severe thunderstorm passed over northwestern Ohio, many buildings in that section being struck by lightning and badly damaged, while telephone and interurban service was seriously crippled.

On the 19th high winds occurred at both Detroit, Mich., and Cleveland, Ohio, in connection with heavy thunderstorms, reaching maximum velocities of 64 and 69 miles, respectively. Much damage was done to shade trees, signs, and buildings in both cities. Destructive storms were again reported over western Michigan on the 25th and over northern Ohio on the 25th and 30th.

Unusually severe thunderstorms occurred at Alpena, Mich., on the 26th and 27th. During the storm of the 26th the wind reached a velocity of 46 miles from the southwest, while at Middle Island, a short distance from Alpena, 64 miles an hour was recorded. The storm on the afternoon of the 27th was more severe, and it is estimated that damage to the extent of over $15,000 was done, many barns with their contents being entirely destroyed. Telephone service was demoralized as a result of these storms.

MISCELLANEOUS.

Hail, causing much damage to crops, was reported from various points in Clinton, Genesee, Oceana, and Muskegon Counties, Mich., on the19th.

A well-defined mirage was observed over Lake Superior northeastward of Duluth on the 9th, and mirages were noticed at Alpena, Mich., on the 7th, 8th, 9th, 10th, and 23d. In each of the above cases, objects ordinarily invisible were distinctly seen apparently considerably above the horizon.

JUNE LAKE LEVELS.

The following data are from the report of the United States Lake Survey:

	Lake Superior.	Lakes Michigan and Huron.	Lake Erie.	Lake Ontario.
	Feet.	*Feet.*	*Feet.*	*Feet.*
Above tidewater at New York	602.31	581.20	573.83	248.02
Above or below:				
Stage of May, 1913	+0.18	+0.15	−0.15	+0.05
Stage of June, 1912	+0.11	+0.74	+1.17	+0.68
Mean stage of June last 10 years	−0.05	+0.19	+0.90	+1.04
Highest recorded stage	−1.12	−2.40	−0.69	−0.61
Lowest recorded stage	+1.07	+1.30	+2.26	+3.13
Probable change during July	+0.20	+0.10	−0.10	0.00

TABLE 1.—*Climatological data for June, 1913. District No. 4, Lake Region.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Minnesota.																				
Cloquet	Carlton	800	2	60.9	.....	94	29	27	9	46	3.53	.....	1.07	0	9	16	8	6	se.	State Forest Exper. Sta.
Duluth	St. Louis	1,133	42	59.3	+ 1.6	88	15	37	7	37	2.03	− 2.50	0.74	0	12	15	9	6	ne.	U. S. Weather Bureau.
Floodwood	....do	1,257	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. H. Schussler.
Grand Marais	Cook	.....	...	54.1	.....	84	15	30	8	41	2.38	.....	0.88	0	7	19	8	3	e.	T. J. Joynes.
Stephens Mine	St. Louis	1,500	6	62.4	.....	92	29†	27	8	46	2.68	.....	0.95	0	7	23	5	2	n.	Oliver Iron Mining Co.
Two Harbors	Lake	614	19	57.2	+ 0.1	93	15†	29	9	53	1.81	− 2.03	0.60	0	6	1	21	8	ne.	G. W. Watts.
Virginia	St. Louis	1,434	19	64.0	+ 2.8	94	29	31	7	39	2.80	− 1.23	1.05	0	8	24	5	1	sw.	Oliver Iron Mining Co.
Wisconsin.																				
Appleton	Outagamie	795	12	70.6	+ 4.8	98	27	34	8	36	2.04	− 1.08	1.15	0	9	20	8	2	se.	Wm. O. Thiede.
Ashland	Ashland	615	22	62.6	+ 1.2	95	29	28	9	45	3.22	+ 0.04	1.83	0	8	24	3	3	w.	Agr. Exper. Station.
Bayfield	Bayfield	635	4	62.7	+ 1.6	90	29	34	8	30	4.65	+ 1.61	1.87	0	9	15	8	7	ne.	Rev. Sabinus Mollitor.
Cecil	Shawano	804	15	66.6	+ 1.4	95	29	30	8†	40	2.84	0.00	1.38	0	6	20	9	1	sw.	Louis W. Schmidt.
Cornucopia	Bayfield	640	1	58.7	.....	84	15	33	8†	38	3.55	.....	1.23	0	8	14	12	4	ne.	Reed Fruit Co.
Crandon	Forest	1,060	18	65.2	+ 2.0	92	29	28	8	35	2.19	− 0.24	0.85	0	7	22	5	3	sw.	Frank Shoemaker.
Florence	Florence	1,293	22	65.8[b]	+ 3.7	95[b]	29	28[b]	9	41[b]	2.69	− 0.60	1.33	0	5	23	5	2	s.	Fred S. Evans.
Fond du Lac	Fond du Lac	800	27	68.9	+ 2.8	98	29	32	9	41	3.63	+ 0.31	1.24	0	9	28	0	2	sw.	Edward A. Seeley.
Grand River Locks	Marquette	770	17	69.3	.....	99	28	34	10	40	3.64	+ 0.51	1.50	0	7	26	2	2	s.	Jerry Parkinson.
Green Bay	Brown	617	27	67.0	+ 1.9	94	29	37	8	28	2.70	− 0.85	1.36	0	7	10	13	7	sw.	U. S. Weather Bureau.
High Falls	Marinette	1,125	1	66.7	.....	95	29†	34	8†	45	1.96	.....	0.71	0	9	23	3	4	se.	No. Hydro-Elec. Pow. Co.
Iron River	Bayfield	1,096	4	64.8	.....	97	29	31	8†	42	3.48	.....	1.00	0	8	23	5	2	s.	Winfield E. Tripp.
Kewaunee	Kewaunee	590	4	61.2	.....	92	27	36	8†	39	3.21	.....	1.32	0	7	22	5	3	s.	Capt. N. Craite.
Manitowoc	Manitowoc	616	62	62.6	+ 0.2	94	27†	35	10†	47	2.26	− 1.14	1.54	0	8	12	14	4	sw.	Miss Johanna Lups.
Menasha	Winnebago	764	16	.....	.....	.....	.....	.....	.....	.....	1.82	− 1.33	1.39	0	7	24	3	3	sw.	Geo. T. Allanson.
Menomonee Falls	Waukesha	842	4	67.8	.....	97	29	32	8	38	4.11	.....	1.32	0	7	20	9	1	sw.	Arthur H. Christman.
Milwaukee	Milwaukee	681	43	66.8	+ 3.3	95	30	39	8	40	2.43	− 1.24	1.09	0	9	18	8	4	sw.	U. S. Weather Bureau.
New London	Outagamie	762	17	68.6	+ 2.8	97	27	35	8	39	3.38	− 0.29	2.15	0	6	16	10	4	sw.	August H. Pape.
Oconto	Oconto	590	22	66.6	+ 1.9	95	27†	33	8†	45	2.66	− 0.47	1.05	0	7	22	5	3	w.	Harry M. Lord.
Oshkosh	Winnebago	744	24	68.0	+ 1.6	96	29	32	8	34	1.46	− 2.69	0.79	0	5	24	5	1	sw.	Evan Vincent.
Pine River	Waushara	900	18	68.3	+ 2.8	95	29†	33	8	37	3.34	− 0.27	1.03	0	11	11	18	1	sw.	Geo. H. Carpenter.
Plum Island	Door	588	5	61.5	.....	87	16	35	9	31	2.06	.....	0.82	0	5	17	2	11	s.	Wm. Robinson.
Plymouth	Sheboygan	843	3	66.2	.....	94	29†	35	8	30	2.17	.....	1.03	0	9	20	7	3	sw.	Paul O. Feldrappe.
Port Washington	Ozaukee	713	20	65.6	+ 2.6	97	27	45	10†	33	4.79	+ 2.11	3.25	0	6	19	8	3	ne.	Richard C. Kann.
Racine	Racine	633	16	68.4	+ 3.6	100	27†	40	10	37	2.21	− 0.61	0.65	0	9	23	4	3	sw.	Daniel Davis.
Ripon	Fond du Lac	1,031	3	69.4	.....	97	28	36	8	33	2.26	.....	0.82	0	7	19	6	5	sw.	Ripon College.
Sheboygan	Sheboygan	831	14	65.8	+ 2.3	102	27	40	8	39	2.44	− 0.45	0.85	0	8	17	9	4	se.	Louis C. Meyer.
Sturgeon Bay	Door	600	14	61.0	+ 0.6	96	30	29	9	39	5.19	.....	3.07	0	8	17	11	2	s.	Adam N. Dier.
Superior	Douglas	701	4	59.0	.....	91	15	38	8†	47	2.06	.....	0.60	0	12	17	9	4	ne.	Edward B. Banks.
Waupaca	Waupaca	857	18	68.2	+ 2.5	100	29	31	8	56	3.89	− 0.13	2.90	0	10	18	5	7	sw.	James H. Flagg.
Illinois.																				
Chicago	Cook	823	43	70.5	+ 4.2	99	30	44	7	41	1.08	− 2.58	0.62	0	6	17	8	5	sw.	U. S. Weather Bureau.
Indiana.																				
Auburn	Dekalb	874	17	68.8	+ 1.5	99	30	33	10	39	0.53	− 3.09	0.33	0	3	23	4	3	sw.	Mrs. Josie B. Kuhlman.
Berne	Adams	849	4	71.2	.....	101	30	37	9	40	1.00	.....	0.30	0	9	17	11	2	sw.	Henry M. Reusser.
Fort Wayne	Allen	856	17	70.7	+ 2.2	98	30	39	8	31	0.69	− 3.15	0.21	0	7	25	3	2	sw.	U. S. Weather Bureau.
Hammond	Lake	598	22	70.9	+ 2.7	99	29†	38	10	48	1.10	− 2.00	0.80	0	2	19	9	2	.....	Carson W. Whitney.
Howe	Lagrange	886	8	70.2	.....	99	30	32	9	43	0.99	.....	0.68	0	4	24	0	6	sw.	A. A. Wade.
Notre Dame	St. Joseph	712	2	70.4	.....	97	30	39	10	32	0.79	.....	0.57	0	5	18	11	1	sw.	U. S. Weather Bureau.
Whiting	Lake	606	4	72.4	.....	99	16	45	11	40	1.10	.....	0.52	0	5	24	3	3	sw.	D. H. Boyd.
Michigan—Upper Peninsula.																				
Baraga	Baraga	623	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	D., S. S., & A. Ry.
Bergland	Ontonagon	1,300	3	64.9	.....	95	30	28	8†	45	4.22	.....	1.55	0	6	18	6	6	ne.	Frank McMonigal.
Calumet	Houghton	1,246	25	62.0	+ 2.4	90	29	35	7	27	2.67	− 0.45	1.19	0	6	23	4	3	w.	E. S. Grierson.
Chatham	Alger	875	12	59.8	+ 2.3	93	30	23	8	46	2.80	− 0.18	1.25	0	5	13	5	12	s.	Upper Peninsula Exp. Sta.
Deer Park	Luce	610	12	62.6	+ 7.0	97	30	36	8	37	2.80	+ 0.77	1.99	0	2	18	5	7	s.	Mrs. Sarah E. McGaw.
Eagle Harbor	Keweenaw	622	14	57.2	+ 1.7	85	30	32	7	37	2.20	− 0.61	0.60	0	7	20	0	10	sw.	T. J. Bennets.
Escanaba	Delta	612	40	61.5	+ 0.9	87	16	36	9	32	2.51	− 1.09	0.72	0	9	16	9	5	s.	U. S. Weather Bureau.
Ewen	Ontonagon	1,147	12	63.6	+ 2.7	93	29	28	8†	41	5.25	+ 3.14	1.37	0	8	17	3	10	sw.	W. B. Hatfield.
Grand Marais	Alger	610	12	58.5	+ 3.0	92	30	36	3†	32	3.04	+ 0.49	1.50	0	9	24	3	3	s.	Mrs. Lena Truedell.
Houghton	Houghton	668	12	61.7	+ 2.2	91	29	34	9	33	2.54	− 0.95	0.97	0	10	16	9	5	w.	U. S. Weather Bureau.
Humboldt	Marquette	1,536	16	64.8	+ 6.9	96	29†	26	8†	46	3.66	+ 1.00	1.10	0	7	23	0	7	w.	D., S. S., & A. Ry.
Iron Mountain	Dickinson	1,111	12	67.0	5.4	95	29	30	7	40	2.37	− 0.16	0.87	0	8	17	11	2	sw.	Chapin Mining Co.
Iron River	Iron	1,504	16	.....	.....	94	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Victor D. Laing.
Ironwood	Gogebic	1,520	10	65.2	+ 4.4	96	28	31	8	38	3.92	+ 0.97	1.94	0	6	25	4	1	sw.	J. V. Brennan.
Ishpeming	Marquette	1,536	13	63.6[a]	+ 4.4	95[a]	29	29[a]	8	38[a]	3.65	+ 1.07	1.08	T.	10	16	10	4	w.	Cleveland Cliffs Iron Co.
Isle Royale	Keweenaw	610	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. A. Malone.
Mackinac Island	Mackinac	831	12	59.0	+ 1.0	84	29†	36	7	27	3.38	+ 0.63	1.90	0	7	7	8	15	w.	Mackinac Isl. State Pk. Com.
Maple Ridge	Delta	.....	7	61.6	.....	89	30	30	9	41	5.17	.....	1.75	0	6	24	1	5	s.	Herman Johnson.
Marquette	Marquette	734	42	61.4	+ 2.9	95	29	35	8	39	2.76	− 0.75	1.02	0	9	17	8	5	sw.	U. S. Weather Bureau.
Menominee	Menominee	581	14	65.6	+ 3.9	94	30	37	8	33	2.93	− 0.12	0.87	0	6	23	4	3	sw.	Chief of Fire Dept.
Munising	Alger	631	16	61.4	+ 3.3	94	30	29	8†	38	2.51	+ 0.29	0.86	0	11	16	8	6	s.	Albert Oas.
Newberry	Luce	773	11	62.3	+ 4.3	90	30	33	4†	35	1.77	− 0.70	0.83	0	9	13	11	6	s.	John Brown.
Powers	Menominee	868	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chicago & North West'n Ry.
St. Ignace	Mackinac	593	23	.....	.....	87	30	.....	.....	.....	0.90	− 2.10	0.30	0	7	20	2	8	w.	D., S. S., & A. Ry.
Sault Ste. Marie	Chippewa	614	25	58.6	+ 1.0	91	30	35	4	38	3.16	+ 0.39	0.91	0	9	9	14	7	w.	U. S. Weather Bureau.
Seney	Schoolcraft	730	1	64.5	.....	98	16	28	9	61	1.25	.....	0.60	0	4	22	5	3	s.	Western Land Securities Co.
Thomaston	Gogebic	1,347	16	63.4	+ 2.7	96	28	28	8	44	4.61	+ 2.29	2.10	0	5	12	18	0	w.	D., S. S., & A. Ry.
Victoria	Ontonagon	1,263	3	65.4	.....	94	28†	32	8†	37	4.47	.....	1.34	0	5	25	4	1	s.	R. S. Schultz, jr.
Watersmeet	Gogebic	.....	4	64.8	.....	94	29	25	8	44	4.63	.....	1.95	0	8	18	7	5	sw.	B. N. Grant.
Whitefish Point	Chippewa	610	13	54.0	+ 0.9	95	30	33	10	39	2.65	+ 0.26	0.89	0	8	16	2	12	nw.	Robert Carlson.
Michigan—Lower Peninsula.																				
Adrian	Lenawee	770	35	70.6	+ 2.9	103	16	33	10	46	1.08	− 3.17	0.55	0	3	17	8	5	sw.	H. E. Hubbard.
Allegan	Allegan	698	22	71.6	+ 4.2	99	29	36	9	40	1.15	− 2.56	0.47	0	4	7	14	9	w.	Pere Marquette R. R.
Alma	Gratiot	750	26	67.3	+ 1.1	96	30	34	9	38	3.22	+ 0.18	1.35	0	5	21	8	1	se.	P. M. Smith.
Alpena	Alpena	609	40	62.2	+ 1.9	97	30	37	8	34	3.20	− 0.35	1.61	0	11	13	15	2	se.	U. S. Weather Bureau.
Ann Arbor	Washtenaw	930	33	68.4	+ 1.3	97	30	35	10	35	0.24	− 3.25	0.12	0	5	21	7	2	w.	University of Michigan.

TABLE 1.—*Climatological data for June, 1913. District No. 4*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Michigan—Lower Peninsula—Contd.																		
Arbela	Tuscola	728	17	67.6	+ 1.9	98	30	30	9	38	2.33	− 0.78	0.91	0	6	7	18	5	sw.	Wm. Atkin.
Armada	Macomb	.....	24	65.0	− 0.8	92	16	33	10	35	2.69	− 0.56	1.19	0	6	16	14	0	sw.	R. O. Gould.
Battle Creek	Calhoun	822	29	69.6	+ 1.1	100	30	36	9†	41	0.50	− 3.80	0.20	0	3	24	3	3	sw.	Elmer E. Sager.
Bay City	Bay	593	17	72.2	+ 6.1	98	29	40	10	42	2.26	− 0.31	0.90	0	4	20	7	3	ne.	Pere Marquette R. R.
Benzonia	Benzie	832	16	64.4	+ 1.9	92	30	33	10	37	2.56	+ 0.26	0.67	0	7	19	9	2	sw.	Wallace Nutting.
Big Rapids	Mecosta	906	17	68.8	+ 4.9	95	16	35	8†	40	3.07	+ 0.54	0.90	0	8	13	14	3	w.	Superintendent Waterworks.
Blissfield	Lenawee	687	1	69.2	.....	99	16	36	9	36	1.12	.....	0.69	0	3	10	15	5	sw.	Harry Watson.
Bloomingdale	Van Buren	.....	9	70.0	.....	96	29†	37	9	43	0.46	.....	0.21	0	4	26	3	1	sw.	John M. Haven.
Cadillac	Wexford	1,293	4	66.3	.....	91	27†	33	8	33	2.00	.....	0.75	0	5	24	4	2	w.	Cadillac Water & Light Co.
Cassopolis	Cass	903	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Michigan Central R. R.
Charlevoix	Charlevoix	610	35	61.8	− 0.3	92	30	32	10	38	3.00	+ 0.65	0.82	0	4	21	8	1	nw.	Pere Marquette R. R.
Charlotte	Eaton	.....	9	68.8	.....	97	30	33	10	40	.....	.....	.....	0	.....	22	5	3	sw.	City of Charlotte.
Cheboygan	Cheboygan	611	23	62.4	+ 0.7	94	30	35	4†	40	3.10	+ 0.40	1.00	0	5	14	15	1	sw.	E. A. Bouchard.
Clinton	Lenawee	830	23	70.2	+ 2.1	100	30	31	9	45	0.94	− 2.08	0.51	0	3	23	6	1	sw.	David Woodward.
Coldwater	Branch	984	16	70.7	+ 4.7	99	30	35	9†	39	1.40	− 2.92	1.40	0	1	25	4	1	sw.	L. S. & M. S. R. R.
Croton	Newaygo	685	5	67.8	.....	95	29	34	10	39	2.68	.....	1.38	0	7	10	19	1	sw.	Gr. Rap. Musk. Power Co.
Detroit	Wayne	730	42	69.0	+ 1.2	95	16	39	8	31	1.42	− 2.47	0.84	0	8	17	9	4	ne.	U. S. Weather Bureau.
Durand	Shiawassee	799	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chief Train Dispatcher.
East Tawas	Iosco	590	16	64.6	+ 2.6	93	30	31	8	38	1.84	− 0.44	0.50	0	4	23	6	1	w.	Detroit & Mackinaw Ry.
Eloise	Wayne	640	16	69.2	+ 2.3	97	30	34	10	36	0.49	− 2.35	0.11	0	6	17	12	1	sw.	John Gilmore.
Five Channels	Iosco	.....	0	65.2	.....	98	30	33	8	44	2.14	.....	0.97	0	7	23	2	5	nw.	Au Sable Electric Co.
Flint	Genesee	730	24	66.8	+ 1.1	97	30	35	9	35	2.03	− 0.84	0.75	0	9	21	4	5	w.	William L. Fisher.
Frankfort	Benzie	589	9	59.2	.....	78	24†	38	9†	20	2.36	.....	0.60	0	6	20	0	10	s.	Geo. Morency.
Ganges	Allegan	665	4	67.4	.....	92	30	37	8†	27	1.35	.....	0.87	0	7	27	2	1	sw.	H. H. Hutchins.
Gaylord	Otsego	1,367	13	68.1	+ 4.8	93	30	36	9	36	2.36	− 0.20	0.84	0	6	18	6	0	sw.	Michigan Central R. R.
Gladwin	Gladwin	794	17	68.0	+ 2.6	98	30	33	8	47	3.10	+ 0.46	1.40	0	5	25	1	4	sw.	Geo. R. Smith.
Grand Haven	Ottawa	628	42	65.2	+ 0.5	90	29	36	8	29	1.56	− 0.95	0.72	0	6	19	8	3	sw.	U. S. Weather Bureau.
Grand Rapids	Kent	707	24	69.8	+ 1.7	97	29	39	8	35	1.50	− 1.02	0.54	0	7	15	13	2	w.	Do.
Grape	Monroe	625	23	68.6	+ 0.9	96	16†	35	10	38	2.12	− 0.85	0.94	0	7	21	7	2	sw.	Joseph W. Morris.
Grass Lake	Jackson	989	7	69.6	.....	101	30	34	9	43	0.88	.....	0.38	0	4	22	4	4	sw.	Menzo Conklin.
Grayling	Crawford	1,147	23	65.3	+ 1.2	95	30	32	8	46	2.93	+ 0.20	0.53	0	8	19	6	5	w.	S. N. Insley.
Greenville	Montcalm	802	1	69.4[c]	.....	97[c]	19	36[c]	8†	50[c]	.....	.....	.....	0	.....	21[c]	0[c]	6[c]	.....	Michigan Pickle Co.
Habor Beach	Huron	635	25	64.6	+ 2.4	99	30	38	10	43	2.39	− 0.27	1.40	0	6	22	5	3	s.	Pere Marquette R. R.
Harrison	Clare	1,159	20	67.2	+ 3.2	96	30	35	9	39	1.96	− 0.79	0.81	0	5	23	5	2	sw.	Do.
Harrisville	Alcona	616	29	62.4	+ 1.5	99	16	35	9	41	1.92	− 1.08	0.65	0	9	17	8	5	sw.	D. W. Mitchell.
Hart	Oceana	698	21	67.2	+ 1.7	97	29	34	8†	38	1.38	− 0.83	0.60	0	5	22	4	4	sw.	Pere Marquette R. R.
Hayes	Huron	620	23	67.6	+ 1.6	98	30	34	10	39	1.15	− 1.23	0.35	0	5	16	7	7	sw.	C. F. Leipprandt.
Highland	Oakland	1,006	21	.....	.....	.....	.....	.....	.....	.....	1.42	− 1.97	0.67	0	5	.....	.....	.....	.....	A. D. De Garmo.
Hillsdale	Hillsdale	1,150	16	69.0	+ 3.1	98	30	31	9	38	0.78	− 3.31	0.62	0	2	26	3	1	sw.	C. L. Herron.
Holland	Ottawa	610	7	67.7	.....	95	30	34	9	38	1.77	.....	1.03	0	8	21	8	1	sw.	City of Holland.
Houghton Lake	Roscommon	.....	0	65.8[b]	.....	94[b]	27	36[b]	9	43[b]	1.50	.....	0.42	0	5	20[b]	3[b]	5[b]	n.	James Ostrander.
Howell	Livingston	924	21	69.3	+ 2.5	97	30	35	9	33	1.56	− 1.22	0.68	0	4	23	4	3	sw.	Frank Sharp.
Ivan	Kalkaska	.....	24	65.1	+ 0.7	92	30	30	8	42	2.93	+ 0.21	1.00	0	8	14	16	0	sw.	O. L. Giddings.
Jackson	Jackson	927	16	70.8	+ 2.7	100	30	35	9	39	0.34	− 2.23	0.14	0	4	28	2	0	ne.	City of Jackson.
Jeddo	St. Clair	667	24	66.0	+ 0.8	95	16	35	9†	37	2.58	− 0.14	1.11	0	6	19	7	4	ne.	William Bice.
Johannesburg	Otsego	.....	0	64.4	.....	93	30	31	8	40	2.15	.....	0.70	0	8	13	15	2	n.	Axel Becker.
Kalamazoo	Kalamazoo	955	37	69.4	+ 1.4	95	30	35	9†	41	0.90	− 3.18	0.80	0	2	21	7	2	w.	Kalamazoo Asylum.
Lansing (Agr. College)	Ingham	863	49	67.6	+ 0.4	98	30	34	9	38	1.01	− 2.39	0.53	0	6	18	6	6	sw.	U. S. Weather Bureau.
Lansing (capitol)	do	881	26	69.0	+ 1.9	99	30	35	9	36	0.82	− 2.93	0.46	0	4	20	5	5	sw.	State Board of Health.
Lapeer	Lapeer	827	14	66.6	+ 1.4	98	30	37	8	40	2.47	− 0.43	1.19	0	5	12	17	1	sw.	Michigan Home.
Ludington	Mason	637	15	61.5	+ 0.1	86	16	34	8	31	2.93	+ 0.47	1.15	0	8	17	9	4	s.	U. S. Weather Bureau.
Luther	Lake	1,028	3	65.6	.....	96	29	31	9†	44	2.32	.....	1.00	0	7	21	7	3	w.	John W. Nichoson.
Mackinaw	Cheboygan	592	22	.....	.....	.....	.....	.....	.....	.....	2.49	− 0.02	1.00	0	5	21	2	7	se.	Grand Rapids & Indiana Ry.
Mancelona	Antrim	1,121	17	64.8[a]	+ 2.0	95[a]	30	28[a]	8	43[a]	2.06	− 0.42	0.66	0	7	20[a]	0[a]	9[a]	sw.	Do.
Manistee	Manistee	600	16	63.8[c]	+ 1.3	90[c]	30	39[c]	8†	31[c]	2.29	− 0.66	1.51	0	5	22[c]	0[c]	5[c]	w.	Postmaster.
Marshall	Calhoun	896	1	70.0[e]	.....	94[e]	16†	38[e]	9†	40[e]	.....	.....	.....	.....	.....	22[e]	1[e]	2[e]	.....	E. B. Stuart.
Midland	Midland	604	14	68.4	+ 2.7	99	16	34	7	48	2.00	− 0.21	0.80	0	3	24	4	2	sw.	Pere Marquette R. R.
Morenci	Lenawee	811	6	69.1	.....	98	16†	36	9†	42	3.34	.....	1.63	0	6	21	3	6	sw.	George J. Tripp.
Mount Clemens	Macomb	615	13	67.6	+ 1.1	99	16	35	10	40	1.42	− 1.44	0.65	0	3	14	10	6	s.	Waterworks.
Mount Pleasant	Isabella	826	14	65.6	− 0.3	99	30	32	9†	47	1.94	− 0.47	0.86	0	3	17	11	2	sw.	Pere Marquette R. R.
Muskegon	Muskegon	587	17	68.0	+ 3.0	89	30	39	8†	35	1.85	− 0.67	0.65	0	6	24	4	2	w.	Grand Rapids & Indiana Ry.
Old Mission	Grand Traverse	858	19	63.7[b]	+ 0.3	92[b]	30	31[b]	7†	35[b]	3.76	+ 1.37	1.15	0	8	16[b]	9[b]	3[b]	sw.	E. O. Ladd.
Olivet	Eaton	934	23	68.6	+ 2.3	99	30	34	10	38	0.88	− 3.35	0.43	0	6	26	3	1	s.	G. A. Knapp.
Omer	Arenac	616	14	67.0	+ 4.2	100	30	27	11	57	.....	.....	.....	.....	.....	.....	.....	.....	w.	Detroit & Mackinaw Ry.
Onaway	Presque Isle	826	10	65.7	+ 3.8	92	30	30	1	42	2.00	− 1.30	0.70	0	3	22	0	8	s.	Do.
Owosso	Shiawassee	731	16	70.0[a]	+ 3.4	101[a]	30	31[a]	8	51[a]	1.42	− 1.19	0.92	0	5	13[a]	16[a]	0[a]	nw.	Owosso Sugar Co.
Petoskey	Emmet	660	23	60.4	− 1.8	93	29	36	7†	35	2.80	+ 0.10	1.00	0	5	16	5	9	w.	Grand Rapids & Indiana Ry.
Plymouth	Wayne	725	16	69.8	+ 2.3	99	16†	34	10	40	.....	.....	.....	.....	.....	26	2	2	s.	Pere Marquette R. R.
Pontiac	Oakland	935	13	67.2	− 0.4	92	30	36	9†	34	1.09	− 1.61	0.33	0	4	18	11	1	sw.	Fred W. Shaw.
Port Austin	Huron	618	16	64.2	+ 2.3	96	16	32	10	46	2.45	+ 0.02	1.15	0	6	22	4	4	s.	Pere Marquette R. R.
Port Huron	St. Clair	639	38	65.4	+ 1.6	95	16	38	10	35	2.76	− 0.48	0.97	0	7	16	10	4	n.	U. S. Weather Bureau.
Reed City	Osceola	1,033	16	65.6	+ 0.2	93	30	32	8†	40	2.03	− 0.47	1.05	0	7	.....	.....	.....	nw.	Osceola Light & Power Co.
Roscommon	Roscommon	1,141	12	63.2[a]	+ 0.4	94[a]	30	29[a]	9	47[a]	1.91	− 0.95	0.65	0	8	15[a]	11[a]	3[a]	sw.	Marcus Schaaf.
Saginaw, east side	Saginaw	601	11	72.3	+ 6.6	99	30	40	8	29	2.85	+ 0.03	0.66	0	7	20	9	1	ne.	Postmaster.
Saginaw, west side	do	641	18	68.0	+ 1.7	98	30	39	9	33	2.56	− 0.08	1.11	0	5	15	12	3	w.	U. S. Weather Bureau.
St. James	Charlevoix	681	7	61.3	.....	87	30	36	8	31	2.66	.....	1.20	0	6	18	6	6	sw.	James Malone.
St. Joseph	Berrien	593	26	68.0	+ 2.7	91	27	40	8†	29	2.10	− 0.96	1.10	0	3	24	4	2	sw.	City of St. Joseph.
Sandusky	Sanilac	790	4	65.6	.....	95	16	31	9	43	3.00	.....	1.35	0	5	18	9	3	ne.	Pere Marquette R. R.
Saranac	Ionia	639	18	68.9	+ 1.5	102	30	29	9	45	0.67	− 2.79	0.47	0	4	20	1	9	sw.	John Wallington.
South Haven	Van Buren	585	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Capt. James S. Donahue.
Thornville	Lapeer	975	36	66.0	− 1.6	92	30	34	10	34	2.09	− 1.50	1.15	0	7	18	9	3	sw.	J. S. Caulkins.
Traverse City	Grand Traverse	588	16	64.4	+ 1.5	94	30	37	9	36	0.98	− 1.34	0.52	0	4	21	2	7	ne.	Grand Rapids & Indiana Ry.
Vassar	Tuscola	641	12	68.8[a]	+ 3.4	98[a]	16†	32[a]	9	41[a]	2.39	− 0.14	0.84	0	5	14[a]	14[a]	2[a]	sw.	Pere Marquette Railroad.
Wasepi	St. Joseph	842	16	69.0	+ 3.2	96	30	36	8†	36	1.54	− 2.46	1.50	0	2	28	0	2	sw.	Charles A. Palmer.
West Branch	Ogemaw	973	8	65.7	.....	98	30	32	8†	56	1.70	.....	1.50	0	2	23	4	3	s.	Michigan Central R. R.
Ypsilanti	Washtenaw	736	28	67.6	+ 1.2	97	27†	35	9†	36	0.55	− 3.32	0.32	0	3	10	20	0	nw.	Orin J. Bemiss.
Ohio.																				
Akron	Summit	1,081	26	68.7[a]	+ 0.4	96[a]	30	37[a]	10	34[a]	1.79	− 1.97	0.76	0	5	20	4	6	.....	Prof. C. R. Olin.
Antwerp	Paulding	733	1	70.6	.....	102	30	37	11	42	0.58	.....	0.43	0	2	22	1	7	sw.	North G. Osborn.
Benton Ridge	Hancock	800	20	69.6	+ 0.1	98	30	36	9	38	1.20	− 2.75	0.76	0	4	23	6	1	sw.	J. W. Powell.
Bowling Green	Wood	670	32	68.4	+ 0.4	98	30	35	10	39	2.42	− 1.42	1.81	0	4	22	6	2	ne.	G. C. Housekeeper.
Bucyrus	Crawford	1,000	19	68.5	− 0.1	98	30	37	11	40	2.70	− 1.00	1.10	0	6	16	9	5	sw.	James R. Hopley.
Cleveland (1)	Cuyahoga	762	42	68.2	+ 0.3	90	30	45	10	30	1.33	− 2.35	0.47	0	7	14	12	4	n.	U. S. Weather Bureau.
Cleveland (2)	do	754	16	68.2	+ 1.0	93	30	42	10	31	2.14	− 0.97	0.78	0	6	22	4	4	w.	Rev. F. L. Odenbach, S. J.
Conneaut	Ashtabula	675	3	66.0	.....	95	30	34	10	40	2.74	.....	0.78	0	7	17	5	8	sw.	E. L. Ransom.

TABLE 1.—*Climatological data for June, 1913. District No. 4*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Ohio—Continued.																		
Findlay	Hancock	776	24	69.8	− 0.1	102	30	36	9†	43	1.60	− 2.41	0.86	0	5	28	1	1	sw.	Dr. E. A. Moser.
Fremont	Sandusky	628	11	69.3	+ 1.1	98	30	40	10†	40	3.72	− 0.99	1.69	0	7	23	5	2	.....	E. Stanley Thomas.
Hedges	Paulding	725	19	70.9	+ 2.6	100	28†	34[a]	9	42[a]	1.60	− 2.04	0.67	0	6	24	5	1	sw.	Charles Stutzman.
Hillhouse	Lake	997	20	65.6	+ 0.6	91	30	31	10	35	2.10	− 1.46	0.75	0	6	24	2	4	w.	J. W. Doncaster.
Hiram	Portage	1,260	33	67.4	+ 0.4	94	30	38	9†	32	1.17	− 2.80	0.70	0	3	20	9	1	nw.	Prof. G. H. Colton.
Hudson	Summit	1,123	52	68.8	+ 1.3	98	30	34	10	40	0.95	− 2.79	0.44	0	4	25	4	1	n.	Dr. W. I. Chamberlain.
Lima	Allen	875	14	70.2	+ 2.4	101	30	37	9	39	0.36	− 3.87	0.20	0	3	20	8	2	ne.	Miss Ollie DeLong.
Medina	Medina	944	25	67.4	− 0.2	98	30	31	10	44	0.62	− 2.62	0.34	0	4	25	3	2	nw.	F. W. Clark.
Montpelier	Williams	880	21	70.6	+ 2.7	101	30	36	10	40	0.58	− 3.25	0.28	0	4	24	4	2	w.	G. L. Laser.
Napoleon	Henry	680	26	69.6	+ 1.1	99	30	39	8	40	1.51	− 2.27	0.90	0	6	23	0	7	w.	A. C. Senter.
New Bremen	Auglaize	1,038	20	70.1	+ 0.7	98	30	37	9	36	1.64	− 1.72	0.99	0	6	20	8	2	sw.	Miss Lillian Grothaus.
North Royalton	Cuyahoga	1,000	20	67.4	+ 0.1	96	30	37	5†	37	1.22	− 2.18	0.85	0	3	25	4	1	w.	W. S. Edgerton.
Norwalk	Huron	719	27	68.8	+ 0.6	101	30	35	10	43	1.29	− 2.17	0.62	0	8	11	15	4	w.	Giles R. Gregory.
Oberlin	Lorain	855	38	67.2	− 0.6	100	30	34	10	44	0.59	− 3.13	0.23	0	7	22	5	3	ne.	Prof. F. F. Jewett.
Ottawa	Putman	720	20	69.5	+ 0.2	98	30	38	9†	38	0.96	− 2.53	0.39	0	4	14	15	1	sw.	Prof. J. T. Maidlow.
Sandusky	Erie	629	36	69.5	+ 0.7	97	30	46	10	32	1.54	− 2.28	0.33	0	11	16	8	6	ne.	U. S. Weather Bureau.
Tiffin	Seneca	775	31	68.5	− 0.8	92	30	39	10	30	1.94	− 2.06	0.54	0	11	19	10	1	n.	Prof. T. H. Sonnedecker.
Toledo	Lucas	769	42	69.9	+ 0.5	97	30	39	8	31	2.12	− 1.26	0.70	0	11	20	8	2	sw.	U. S. Weather Bureau.
Upper Sandusky	Wyandot	854	30	69.4	− 0.1	98	30	36	10	39	2.68	− 1.52	1.60	0	6	18	10	2	w.	Robert E. Tracht.
Vickery	Sandusky	588	20	67.7	− 0.5	99	30	36	10	41	3.05	− 0.52	1.09	0	10	16	11	3	ne.	John W. Barr.
Wapakoneta	Auglaize	898	1	71.2	.....	100	30	36	9	38	1.55	.....	0.59	0	8	20	9	1	sw.	Dr. William Kayser.
Wauseon	Fulton	780	41	69.0	+ 0.4	97	17	36	9†	41	1.89	− 2.10	1.40	0	6	17	12	1	s.	Thomas Mikesell.
Wickliffe	Lake	740	1	.....	.....	.....	.....	.....	.....	.....	1.35	.....	0.55	0	7	23	6	1	.....	C. M. Richardson.
Pennsylvania.																				
Erie	Erie	658	40	65.9	− 1.1	90	30	42	9	28	2.79	− 0.96	0.98	0	9	17	11	2	w.	U. S. Weather Bureau.
New York.																				
Adams Center	Jefferson	540	22	65.0	− 0.5	92	26	32	9	34	1.49	− 2.37	0.92	0	5	25	4	1	sw.	A. E. Cooley.
Angelica	Allegany	1,340	30	61.0	− 2.9	89	30	26	9	47	4.38	+ 0.16	2.64	0	7	6	15	9	w.	Charles P. Arnold.
Appleton	Niagara	270	22	63.8	− 0.8	92	16	38	10	35	2.16	− 0.90	1.56	0	5	23	5	2	sw.	H. A. VanWagoner.
Auburn	Cayuga	715	44	64.3	− 1.5	90	16	35	9	36	2.94	− 1.16	0.88	0	6	22	6	2	nw.	A. H. Underwood.
Avon	Livingston	585	18	65.8	− 0.5	95	28	37	9	40	3.72	+ 0.50	1.85	0	5	19	7	4	.....	W. G. Markham.
Brockport	Monroe	537	17	65.2	− 0.9	90	25†	36	9	34	2.95	− 0.12	1.17	0	8	22	6	2	sw.	C. O. Beaman.
Buffalo	Erie	767	62	63.4	− 1.7	83	24	41	8	21	1.69	− 1.45	0.56	0	10	12	15	3	sw.	U. S. Weather Bureau.
Canisius College	do	.....	0	62.6	.....	86	25	38	8	29	2.28	.....	0.71	0	10	12	15	3	.....	Do.
Canton	St. Lawrence	448	19	62.0	− 3.1	87	27	35	9	40	1.15	− 2.28	0.55	0	8	10	14	6	sw.	Do.
Cape Vincent	Jefferson	246	8	62.7	.....	89	25	41	10	32	0.66	.....	0.30	0	4	21	7	2	n.	J. Harry Grapotte.
Chazy	Clinton	151	13	64.1	− 0.3	88	16	35	10	38	1.21	− 2.03	0.60	0	3	20	10	0	n.	W. R. North.
Chestnut Lawn	Wyoming	1,090	1	64.3	.....	91	30	33	9	36	4.00	.....	0.96	0	11	19	9	2	w.	Charles Peterson.
Dannemora	Clinton	1,490	8	65.2	.....	86	16	38	8†	40	2.01	.....	0.75	0	6	12	9	9	w.	Dr. W. N. Thayer.
Elba	Genesee	500	14	62.9	− 1.7	88	25†	35	9	35	1.65	− 1.38	0.50	0	5	22	6	2	sw.	Joseph S. Wilford.
Fayetteville	Onondaga	530	12	65.4	− 0.9	91	30	32	9	38	3.25	− 1.44	1.15	0	11	21	8	1	sw.	Dana H. Wells.
Gabriels	Franklin	1,729	11	59.0	.....	88	25	30	9	49	2.38	.....	0.93	0	6	18	9	3	w.	Gabriels Sanitarium.
Geneva	Ontario	.....	0	66.8	.....	92	30	37	9	37	3.24	.....	1.27	0	7	.....	.....	.....	.....	Agri. Exp. Station.
Harkness	Clinton	622	11	63.2	− 0.2	88	16†	36	9	35	1.45	− 1.84	0.47	0	9	28	2	0	s.	J. W. Harkness.
Hemlock Lake	Livingston	900	15	64.7	− 1.3	88	30	38	9	32	4.80	+ 1.50	2.90	0	6	26	2	2	s.	Bernard P. McGrady.
Hunt	do	1,321	14	64.4	− 2.1	92	16	34	9	41	3.76	− 0.09	1.25	0	9	19	9	2	sw.	W. S. Barager.
Ithaca	Tompkins	928	35	65.0	− 1.2	94	30	32	9	41	2.00	− 1.88	0.65	0	8	19	6	5	nw.	U. S. Weather Bureau.
Keene Valley	Essex	1,000	15	63.4	+ 0.7	94	30	30	8	50	1.43	− 2.32	0.38	0	10	19	8	3	sw.	E. R. Wells.
King Ferry	Cayuga	.....	13	.....	.....	.....	.....	.....	.....	.....	1.67	− 2.20	0.66	0	6	20	6	4	nw.	Lucius A. Goodyear.
Lake George	Warren	350	16	65.1	+ 0.7	92	27†	33	9	43	1.38	− 2.81	0.41	0	7	16	12	2	s.	Charles Forsell.
Lake Placid Club	Essex	1,864	5	53.8	.....	82	30	27	10	45	2.22	.....	0.98	0	7	20	9	1	nw.	Henry van Hoevenberg.
Lauterbrunnen	Wyoming	.....	1	64.6	.....	92	30	33	9†	37	4.20	.....	0.96	0	11	18	9	3	w.	James O. Howard.
Lockport	Niagara	520	26	64.0	− 2.2	87	16†	37	9	32	3.16	+ 0.65	1.88	0	5	21	7	2	w.	Robt. N. Clark.
Lowville	Lewis	900	46	65.8	+ 2.8	95	15	32	10	49	1.52	− 2.08	0.40	0	10	13	17	0	w.	Prof. W. F. H. Breeze.
Moira	Franklin	200	13	62.4	− 2.0	89	30	30	9	48	1.72	− 2.13	0.54	0	6	11	15	4	w.	C. E. McBride.
Nehasane	Hamilton	1,750	5	58.4	.....	88	25	26	9	48	1.43	.....	0.63	0	9	17	13	0	nw.	L. W. Brown.
North Lake	Herkimer	1,822	12	59.4	.....	89	25	28	10	44	2.42	.....	0.54	0	7	23	4	3	w.	John F. Redmond.
Ogdensburg	St. Lawrence	175	29	63.5	− 1.5	87	27	38	9	35	0.81	− 2.74	0.56	0	3	14	15	1	s.	State Hospital.
Old Forge	Herkimer	1,722	5	58.4	.....	89	25	25	9	46	1.89	.....	0.47	0	11	18	7	5	w.	Mrs. S. W. Nelson.
Oswego	Oswego	335	43	62.0	− 1.8	89	30	44	9	33	1.91	− 1.52	0.69	0	9	15	9	6	sw.	U. S. Weather Bureau.
Otto	Cattaraugus	1,410	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	William J. Winke.
Palermo	Oswego	460	54	.....	.....	.....	.....	.....	.....	.....	1.50	− 1.76	0.49	0	9	16	10	4	w.	Wm. A. Bartlett.
Perry City	Schuyler	1,038	33	62.0	− 2.9	93	30	26	9	45	2.35	− 1.72	0.91	0	8	18	5	7	n.	W. H. Jeffers.
Philadelphia	Jefferson	485	7	62.9	.....	90	26	32	9	38	1.41	.....	0.46	0	8	10	18	2	w.	E. D. Babcock.
Potsdam	St. Lawrence	300	37	65.1	+ 0.8	90	25†	35	9	40	1.00	− 2.72	0.57	0	6	.....	.....	.....	.....	A. E. Sutherland.
Ranger School	do	1,750	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. P. T. Coolidge.
Raquette Lake	Hamilton	1,776	5	59.6	.....	90	25	27	9	45	1.58	.....	0.43	0	8	21	5	4	sw.	R. J. Dunning.
Rochester	Monroe	523	84	65.5	− 0.6	91	30	40	10	31	2.11	− 1.02	0.87	0	8	18	6	6	w.	U. S. Weather Bureau.
Romulus	Seneca	719	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John H. Coryell.
Shortsville	Ontario	740	14	64.9	− 0.6	89	30	36	9	30	2.65	− 0.97	0.89	0	8	19	9	2	w.	C. H. Latting.
Skaneateles	Onondaga	.....	18	.....	.....	.....	.....	.....	.....	.....	2.54	− 1.72	0.82	0	8	.....	.....	.....	.....	John Durkan.
Syracuse	do	597	11	64.4	− 2.5	88	25	37	9	33	2.10	− 1.79	0.62	0	10	18	7	5	nw.	U. S. Weather Bureau.
Tupper Lake	Franklin	1,522	13	59.9	0.0	89	25	32	9	47	4.43	+ 0.19	1.45	0	8	22	2	6	w.	Rev. A. W. Maddox.
Volusia	Chautauqua	1,167	14	63.5	− 0.2	87	30	36	10	33	3.62	+ 0.20	1.12	0	6	17	10	3	n.	Benjamin Breads.
Wanakena	St. Lawrence	1,600	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. P. T. Coolidge.
Watertown	Jefferson	540	21	63.8	− 2.2	89	25	35	9	34	1.77	− 1.70	1.09	0	10	20	8	2	sw.	H. P. Dunlap.
Wedgwood	Schuyler	1,430	24	64.2	− 1.4	94	30	33	9	38	1.88	− 2.26	0.66	0	7	24	6	0	nw.	O. F. Corwin.
Westfield	Chautauqua	837	17	65.3[c]	0.0	90	30	38	9†	36[c]	3.08	− 0.57	1.05	0	7	16	10	4	.....	John R. Rogers.
York	Livingston	760	1	65.0	.....	90	30	36	10	34	2.61	.....	1.05	0	9	12	10	8	nw.	M. N. Stewart.
Vermont.																				
Burlington	Chittenden	404	5	62.2	− 1.6	87	27	35	10	35	2.22	− 1.04	0.75	0	10	7	17	6	s.	U. S. Weather Bureau.
Cornwall	Addison	517	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Lane.
Enosburg Falls	Franklin	601	21	61.0	− 4.2	87	27	31	10	47	4.85	+ 0.30	1.32	0	7	14	13	3	n.	L. H. Pomeroy.
Hyde Park	Lamoille	576	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. V. Wiswell.
Northfield	Washington	876	26	59.0	− 3.7	87	27	30	10	41	1.29	− 1.96	0.64	0	10	8	16	6	s.	U. S. Weather Bureau.
Wells	Rutland	750	20	62.8	− 2.9	86	27	33	9	34	1.32	− 2.29	0.60	0	6	14	15	1	s.	E. R. Pember.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for June, 1913. District No. 4, Lake Region.*

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Minnesota.																																
Cloquet	Lake Superior		T.	.02		1.07	T.								.05			.06		.65					.85	.02	.78			.03	3.53
Duluth	do		.09			.18	T.								.16		T.	.01	.28	.18				.21	.09	.11	.68	.02	.01	.01	2.03
Floodwood	do																															
Grand Marais	do		.20			.66								.16	.07				.23						.18		.88				2.38
Stephens Mine	do	.15	.10			.95	.20																			.35		.43			.50	2.68
Two Harbors	do	.05				.11	.60								.24					.55							.26	T.			1.81
Virginia	do	.24	.05												.04			.04		1.05					.39		.39			.60	2.80
Wisconsin.																																
Appleton	Fox					.04	.06								.15	.27		T.	.08	.02	1.15					.08					.19	2.04
Ashland	Lake Superior		T.	.05		.10	1.73								.24			T.	.01	.65					T.	.01	.43				3.22
Bayfield	do	.08	T.	.02		.36	.78								.61				T.	.60	T.				.30	.03	1.87		T.		4.65
Cecil	Fox	T.				T.	T.								.40					1.38	.42				.26	.32				.06	2.84
Cornucopia	Lake Superior	.11	T.	.04		.29	1.23								.58		T.	T.	T.	.42						.03	.85				3.55
Crandon	Fox	.05					.84								.18	.19			T.	.85	.06					.02						2.19
Florence	Menomonee						.45								.55					1.33							.27	.09				2.69
Fond du Lac	Fox					.15	.65								.08	.15	.09		.60		1.24					.02					.65	3.63
Grand River Locks	do					.15	.25								.20		1.25				1.50	.04				T.	T.				.25	3.64
Green Bay	Lake Michigan	.01				.02	.54								.36				T.	.71	.80					T.	T.				.26	2.70
High Falls	do	.01					.05								.20	.31			.04	.45	.06					.13	.71					1.96
Iron River	Lake Superior	T.		.13		.17	1.00								.63	T.				.60	T.						.10	.82	.03			3.48
Kewaunee	Lake Michigan					.12	.12								.18	.24				.70	1.32										.53	3.21
Manitowoc	do					.06	.07								.01				.01	.05	1.54					.07					.45	2.26
Menasha	Fox					.03	.13								.06	.08			.04		1.39					T.					.09	1.82
Menomonee Falls	Lake Michigan					T.	.32									.53	1.21		.62		1.32				.02	T.					.09	4.11
Milwaukee	do					.01	.39								.21	.12	.28		.14	.11	1.09				T.	T.					.08	2.43
New London	Fox						.15								.70				.20	2.15				T.	T.		.08				.10	3.38
Oconto	Lake Michigan	.02				.02									.10	.71				1.05	.41						.35					2.66
Oshkosh	Fox	T.				.04									.07	T.	T.		.19		.79				T.						.37	1.46
Pine River	do	T.			T.	.06	.32							.12	.07	T.	.06		1.03		.87	.01			T.	.07	.06				.67	3.34
Plum Island	Lake Michigan						T.								.33					.82	.39						.50				.02	2.06
Plymouth	do	T.				.12	.14								T.	.22	.12		.27		1.03	.01			T.	.20					.06	2.17
Port Washington	do						.10									.85			.36		3.25	.15				.08						4.79
Racine	do					T.	.14	.65								.30	.12	.36	.20		.10	.32				.02					T.	2.21
Ripon	Fox					.08	.09								T.		.05		.76		.82					.04					.42	2.26
Sheboygan	Lake Michigan					T.	.05	.47								.19			.25	T.	.85	.09				.30					.24	2.44
Sturgeon Bay	do					.42	.46								T.	.15			T.	3.07	.37					.11	.12				.49	5.19
Superior [1]	Lake Superior	.01		.07		.13	.26									.17			.01	.50	.02					.13	.15	.60	.01			2.06
Waupaca	Fox					.07	.05								.12	.07	.05		.26	.92	1.98					.28					.09	3.89
Illinois.																																
Chicago	Lake Michigan	T.				T.	T.	.01							.11	.01	.02	T.	T.		T.	.62				.31						1.08
Highland Park	do						T.											.13	T.	.19		1.25				.14						1.71
Indiana.																																
Auburn [1]	Maumee		.33					.10									T.					T.	.10								0.53
Berne	do	.11						.10											T.	.02		.23	.16	.03		.02	.03	.30					1.00
Fort Wayne	do	.21						.02											.01	T.	.13			.16		.08	.08				T.		0.69
Hammond	Lake Michigan	T.					T.									T.								.80			.30						1.10
Howe [1]	St. Joseph								.05														.20	.68			.06						0.99
Notre Dame	do	.01						.09									.06		T.		T.	.57				.06						0.79
Whiting	Lake Michigan						T.									T.	.02		.05			.52				.43	.08					1.10
Michigan—Upper Peninsula.																																
Baraga	Lake Superior																															
Bergland	Ontonagon			.10			1.55								.13	T.				1.34						T.	.18	.92				4.22
Calumet	Lake Superior	.03	T.	.08		T.	.24								1.19				T.	.22						T.	T.	.91	T.			2.67
Chatham	do	.02					.90													.38							.25	1.25				2.80
Deer Park	do			T.			T.												T.								1.90			.90	2.80
Eagle Harbor	do		.20			.30	.10								.60				.20	.20							.60				2.20
Escanaba	Lake Michigan	.01	.01			T.	.46	T.							.58	T.				.72						.04	.25	.33		T.	.11	2.51
Ewen	Ontonagon			.06			1.37								.50			T.	.90	1.25						.01	.56	.60				5.25
Grand Marais	Lake Superior	.05	T.	.05			.50									.08			.05	.20						T.	.34	1.50			.27	3.04
Ontonagon	do						.96								.25																	
Houghton	do	.01	.11			.07	.19								.97			T.	.02	.16						T.	.09	.88		.04		2.54
Humboldt	Escanaba		T.				1.10								.10					.90	.04					.34		.88		.30		3.66
Iron Mountain	Menominee	.03					.24								.14	.36				.87	.10					.35	.28					2.37
Iron River	do														T.	.35				1.60							.45	.15				
Ironwood	Lake Superior						1.94								.52					.54						.15	.59	.18				3.92
Ishpeming	Escanaba	T.	.01				1.08	.01							.10	.21			T.	.77	.27					.08	.30	.82		T.		3.65
Isle Royale	Lake Superior																															
Mackinac Island	Lake Huron	.01	T.				.19									T.			T.	.17						1.90	.13	.94	.04		T.	3.38
Maple Ridge	Lake Michigan						1.04								.40					1.75								1.43	.05	.50		5.17
Marquette	Lake Superior		.01			.09	.72	T.							.12				.20	.43						.01	.16	1.02				2.76
Menominee	Menominee	T.				T.									.81					.87	.38				.05		.50			.32	2.93
Munising	Lake Superior	.07	.03				.86									.26			.01	.31	.01					.31	.48		.04	.13	2.51
Newberry	Tequamenon	.10	.02				.42									.04			.04	.20						.03	.09	.83				1.77
Powers	Lake Michigan																															
St. Ignace	Lake Huron						.10													.15						.20	.05	.30	.05	.05		0.90
Sault Ste. Marie	St. Marys	T.	.01	.03		.02	.25								T.	.40			T.	.53						.84	T.	.91		.17		3.16
Seney	Manistique						.60																			.05	.10	.40			.10	1.25
Thomaston	Lake Superior		T.				2.10								.34					1.02						.10		1.05				4.61
Victoria	Ontonagon						.95								.38					.88							.92	1.34				4.47
Watersmeet	do	.04		.03		T.	1.95								.74					.50	T.					.11	.49	.77				4.63
Whitefish Point	Lake Superior			.05			.34									.01			.03	.44						.02		.89			.87	2.65
Michigan—Lower Peninsula.																																
Adrian	Raisin																.31			.22	T.	.55										1.08
Allegan	Kalamazoo							T.											.24		.47	.34			.10							1.15
Alma	Saginaw							.45												.30	1.35	.15				.97						3.22
Alpena	Lake Huron	.01	T.	T.			.30									.03			.02	.44	.01					.09	1.29	.75		.12	.14	3.20
Ann Arbor	Huron							T.										.07	.04	.01	.09	.03					T.					0.24
Arabela	Saginaw						.12	.91												.15	.90				.15						.10	2.33
Armada	Clinton	T.					T.	.83												.43	1.19	.11				.10	.03					2.69
Battle Creek	Kalamazoo							.10										.20			T.	.20				T.						0.50

TABLE 2.—*Daily precipitation for June, 1913. District No. 4*—Continued.

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Michigan—Lower Peninsula—Con.																																
Bay City	Saginaw						.60													.52	.90				.24							2.26
Benzonia	Betsey					T.	.14									.24				.63	.35					.67	.23				.30	2.56
Big Rapids	Muskegon						.20	.08												.28	.76	.06				.53	.90			.26		3.07
Blissfield	Raisin																	.39			.04	.69				T.						1.12
Bloomingdale	Lake Michigan							.21									T.	.06			.09	.10										0.46
Cadillac	Manistee							.20								.08				.57	.75					.40						2.00
Cassopolis	St. Joseph																															
Charlevoix	Lake Michigan																			.82						.80	.56			.82		3.00
Charlotte	Kalamazoo																														.10	
Cheboygan	Cheboygan						.55													.73						1.00	.15	.67				3.10
Clinton	Raisin																	.51		T.	.21	.22										0.94
Coldwater	St. Joseph																					1.40				T.						1.40
Croton	Muskegon						.06	.15								.10				.07	1.38	.07				.85	T.					2.68
Detroit	Detroit						T.	.05									T.	.01	.02	.65	.55	.06				T.	.04				.04	1.42
Durand	Saginaw																															
East Tawas	Lake Huron															T.				.50	.40					.50	.44					1.84
Eloise	Rouge							.09										.05	.05	.09	.11					T.	.10					0.49
Five Channels	Au Sable							.08												.42	.29					.22	.11	.97	.05			2.14
Flint	Saginaw	.08					.02	.20												.08	.75	.30				.08	.12				.40	2.03
Frankfort	Betsey						.36									.18				.40	.60					.42					.40	2.36
Ganges	Lake Michigan						T.	.03								.04	.01	.05			.87	.04					.31						1.35
Gaylord	Cheboygan						.31													.68	.14					.38	.84	T.		.01		2.36
Gladwin	Saginaw															.10			.25		1.20					1.40	.15					3.10
Grand Haven	Grand					T.	.08									.01	.38		T.	.04	.72				T.	.33						1.56
Grand Rapids	do	T.					.36									T.	.05		T.	.10	.48				.02	.48	.01			T.		1.50
Grape	Raisin			T.														.30	.94	.25	.20	.22				.12	.03					2.12
Grass Lake	Grand						T.											.38		T.	.05	.10			T.						.35	0.88
Grayling	Au Sable				T.		.41									.22				.44	.53					.38	.19			.45	.31	2.93
Greenville	Grand																				.06	1.00					.95					
Harbor Beach	Lake Huron						.02	.22												.10	.40						1.40	.25				2.39
Harrison	Saginaw						.14													.52	.81					.35	.14					1.96
Harrisville	Lake Huron	.02		.05				.03								.04				.65	.25					.16	.50	.22				1.92
Hart	Pentwater																		.06		.60	.12				.50	.10					1.38
Hayes	Pigeon							.25												.18	.35					.23					.14	1.15
Highland	Huron							.54										.05		T.	.67				T.	.11	.05				T.	1.42
Hillsdale	St. Joseph																			.16	T.	.62			T.						T.	0.78
Holland	Lake Michigan						.07	.05								.02		.23	.01		1.03	.08				.28						1.77
Houghton Lake	Au Sable						.21													.42	.40					.42				.05		1.50
Howell	Saginaw						.33	.08											T.	T.	.05	.50										1.56
Ivan	Manistee	.01				T.	.36										T.			.75	.30					1.00	.10			.26	.15	2.93
Jackson	Grand							.02										.14			.08	.10										0.34
Jeddo	St. Clair						T.	.57									T.			.07	1.11	.52				.20	.11					2.58
Johannesburg	Cheboygan	T.				T.	.25													.50	.10					.20	.70		.10	.15	.15	2.15
Kalamazoo	Kalamazoo																	.80			T.	.10										0.90
Lansing (Agricultural College)	Grand						.12	.08									.15			.09	.53										.04	1.01
Lansing (Capitol)	do							.23										.03			.10	.46									T.	0.82
Lapeer	Saginaw							.38												.40	1.19					.12	.38					2.47
Ludington	Pere Marq'te					T.	.16								.16	.14		T.		.51	1.15					.48	.21				.12	2.93
Luther	Manistee					T.	T.									.11				.16	1.00					.23	.13			.64	.05	2.32
Mackinaw	Lake Huron						.17													.55						1.00	.22	.55				2.49
Mancelona	Lake Michigan	T.					.10											.08		.25	.29					.66	.58			T.	T.	2.06
Manistee	Manistee					T.	.19													.11	1.51					.39					.09	2.29
Marshall	Kalamazoo																															
Midland	Saginaw						T.	.60													.80					.60						2.00
Morenci	Maumee							.02									1.63				.01	1.31			.30		.07					3.34
Mount Clemens	Clinton						T.	.37												T.	.65						.40					1.42
Mount Pleasant	Saginaw						.29														.79					.86						1.94
Muskegon	Muskegon						.10	.28										.15		.05	.65					.62						1.85
Old Mission	Lake Michigan		.05				.47													.52	.21					.22	1.15			1.07	.07	3.76
Olivet	Kalamazoo						.06											.03			.43	.15			.02						.19	0.88
Omer	Lake Huron																															
Onaway	Cheboygan																			.60							.70	.70				2.00
Owosso	Saginaw							.11										.01		.16	.92	.22										1.42
Petoskey	Lake Michigan		T.			T.	T.		T.										T.	1.00						.50	.50		.70	.10		2.80
Plymouth	Rouge																															
Pontiac	Clinton						T.	.30										T.		T.	.33	.22					.24					1.09
Port Austin	Lake Huron			.08				.13								T.				.18	.73						1.15	.18				2.45
Port Huron	St. Clair	.01					.75	.15								T.				.51	.88	T.					.38				.08	2.76
Reed City	Muskegon						.05	.01								.03				.10	1.05					.53	.26					2.03
Roscommon	Au Sable						.09	.65												.60	.20					.18	.12			.03	.04	1.91
Saginaw E. Side	Saginaw						.02	.50												.19	.65	.06				.61	.22					2.85
Saginaw W. Side	do						.63													.31	1.11				.31	.20						2.56
St. James	Lake Michigan					T.	.08										T.			1.20	.08					.94	.10	.26				2.66
St. Joseph	St. Joseph							.50										T.	T.		.50	1.10										2.10
Sandusky	Lake Huron							.92												.02	.68						1.35	.03				3.00
Saranac	Grand							.05													.47	.05				.10						0.67
South Haven	Lake Michigan																															
Thornville	Saginaw							.26												.35	1.15					.06	.10	.11			.06	2.09
Traverse City	Lake Michigan	T.					.12													.52	.22						T.	.12				0.98
Vassar	Lake Huron							.84												.18	.60	.57						.20				2.39
Wasepi	St. Joseph																				.04	1.50						T.				1.54
West Branch	Lake Huron																			.20	T.					1.50						1.70
Ypsilanti	Huron																		.32	.14	T.	T.	.09									0.55
Ohio.																																
Akron ‖	Lake Erie		.63		T.				T.									T.			.76	.01				.34	.05					1.79
Antwerp	Maumee	.43						.15													T.	T.										0.58
Benton Ridge	do	.22		.06				T.										.76			T.	.16										1.20
Bowling Green	Lake Erie	T.		T.			.20	.31										T.	1.81		T.	.10										2.42
Bucyrus ‖	Sandusky		.20					.20											1.10		.35	.65		.20			T.					2.70
Cleveland (1)	Lake Erie	.18		T.			T.	T.								T.					.44	.07	.31			.01	.30	.02				1.33
Cleveland (2)	do	.05						T.								T.					.78	.03	.44			.23	.61					2.14
Conneaut	do		.20					.78														.52	.60				.03	.54	.07				2.74
Findlay ‖	Maumee		.08		.40			.03											.86			T.		.23									1.60
Fremont	Sandusky	T.		.35			.60												1.69	.56		T.	.07			.44	.01					3.72
Hedges	Maumee	.58					.19																.06			.05	.05		.67			1.60
Hillhouse	Lake Erie							.75									.03					.14	.38			T.	.15	.65					2.10
Hiram	do	T.						T.														.70	.37					.10			T.	1.17

TABLE 2.—*Daily precipitation for June, 1913. District No. 4*—Continued.

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Ohio—Continued.																																
Hudson	Lake Erie	.06																			.44	.15				.30						0.95
Lima ‖	Maumee		.20		.12													T.			T.	T.				T.	.04					0.36
Medina	Lake Erie	.14		T.				T.													.10	T.			.34	T.	.04					0.62
Montpelier	Maumee	.04						.06									.20				T.	.28			T.							0.58
Napoleon	do	.08		.26			0.5	.14									.90					.08										1.51
New Bremen	do	.31		.15				.99										.03			T.	T.	.02	T.	T.	.14						1.64
North Royalton	Lake Erie		.20																	.85		.17										1.22
Norwalk ‖	do		.03		.08			.05										.62		.03	.11		.02				.35					1.29
Oberlin	do	T.		.06				T.										.02			.23	.09			.05	.10	.04					0.59
Ottawa	Maumee	.25		T.				.15										.39		T.	T.	.17				T.						0.96
Sandusky	Lake Erie	T.		.02			.29	T.									.11	.09	.18	.16	.01	.32			T.	.30	.03				.03	1.54
Tiffin	Sandusky	.09		.14			.03	.11									.30	.54	.25		.17	.18			.07	.06						1.94
Toledo	Maumee			.40			.09	.01									.68	.02	.05		.01	.68			.14	.03	T.				.01	2.12
Upper Sandusky	Sandusky	.28						.25									T.	1.60		.35		.15	T.		.05		T.					2.68
Vickery	Lake Erie	.01	T.	.74				1.09									.04	.30	.29		.01	.14			.29	.14						3.05
Wapakoneta	Maumee	.45		.59				.25													.12		.01	.01	.05	.07						1.55
Wauseon ‖	do		.03					.06	.02								T.	1.40				.29	.09			T.	T.					1.89
Wickliffe ‖	Lake Erie	.08	.08					.17								.11						.31				.55	.05					1.35
Pennsylvania.																																
Erie	Lake Erie	.02		.02				.23								.34				.06	.81	.09					.24		.98			2.79
New York.																																
Adams Center	Lake Ontario	.18	T.		.15			.92						T.		.22					.02											1.49
Angelica	Genesee	.10	.05					1.16									.25			.08	2.64					.10						4.38
Appleton	Lake Ontario	.02		T.				1.56								T.				.06	.25	T.					T.	.27				2.16
Auburn	Oswego	.88						.74									.06			T.	.28	.45						.53	T.			2.94
Avon	Genesee	.48						.18												T.	.15					1.85		1.06				3.72
Brockport	Lake Ontario	.41			T.			.58												.02	.12	.05				.59	.01	1.17				2.95
Buffalo	Lake Erie	.41		.03				.20								.03	.03			.28	.42	.13					T.	.14	.01			1.69
Canisius College	do	.32		.02				.21								.13	.03			.33	.47	.05						.71	.01			2.28
Canton	Grass	.04		.11	T.		.40	.15		T.				T.		.22				.03							.07	.13	T.		T.	1.15
Cape Vincent	St. Lawrence			.15			.30									.07				.14												0.66
Chazy	Champlain		T.					.38																			.23	.60				1.21
Chestnut Lawn	Genesee	.80	.23		.06			.96									.02			.01	.66	.15				.42	.02	.67				4.00
Dannemora	Champlain		T.	T.				.21		T.				T.			.20	.10	.05	T.							.75	.70				2.01
Elba	Lake Ontario	.48			T.			.50												T.	.31	.03					T.	.33	T.			1.65
Fayetteville	Oswego	.03	.84					.36							.06	T.	.08			.06	.49	.12				.66	.55	.06				3.25
Gabriels	St. Regis	.29					.85	.02								.28	T.			.01							.93					2.38
Geneva	Oswego	1.27					.28	.28												.09	.30					.03	.99					3.24
Harkness	L. Champlain		.04		.02			.23		.01						.04	.21	.26									.47	.17				1.45
Hemlock Lake	Genesee	.40					T.	.77												.04	.57					.12		2.90				4.80
Hunt	do	.90			.05			1.25												.12	.44	.18				.15	.04	.63				3.76
Ithaca	Oswego	.11						.58								T.				.07	.53	.19				.14		.37	.01			2.00
Keene Valley	Ausable	.09	.18		T.		.09	.11	.05	.09						.38			.15	.06						23						1.43
King Ferry	Oswego	.04	.12					.66												T.	.22	.11						.52				1.67
Lake George	L. Champlain	.14	.11						T.	T.						.30	.41			.20	.10						.12					1.38
Lake Placid Club	Ausable, W. B.	T.			.05		T.	.98		T.				T.		T.	.46	.05		.03		T.					.60	.05			T.	2.22
Lauterbrunnen	Genesee	.39	.62		.07			.96									.02			.02	.64	.16				.69	.01	.62				4.20
Lockport	Lake Ontario	.07						1.88												.08	.36							.77				3.16
Lowville	Black		.18		.02			.40							.01		.16			.01	.32	.01					.40	.01				1.52
Moira	St. Lawrence		.37	.04		.07	.35							T.		T.	.54			T.							.35	T.				1.72
Nehasane	Black	.06	.11		.08		T.	.63						T.		.08				.16	.02						.14		.15			1.43
North Lake	do	.19	.45					.22									.42			.54							.46		.14			2.42
Ogdensburg	St. Lawrence	T.	T.	T.			T.	.56						T.			T.			.05							T.	.20				0.81
Old Forge	Black	.10	.22		.15			.47									.25			.25	.17	.02					.18	.03	.05			1.89
Oswego	Lake Ontario	.69		.03				.52						T.		.02				.09	.10						.11	.23	.12			1.91
Otto	Lake Erie																															
Palermo	Lake Ontario		.49					.30	.03					.02		.11				.10		.16					.26	.03				1.50
Perry City	Oswego	.11	.12					.91												.02	.39	.12				.09		.59				2.35
Philadelphia	St. Lawrence	.05	.35		.07		T.	.46						T.			.05				.28						.10		.05			1.41
Potsdam ‖	Raquette		.10		.11			.57							.04		.12											.06					1.00
Ranger School	Oswegatchie																															
Raquette Lake	Raquette		.30		.11			.43							.06		.21			.04	.14							.29				1.58
Rochester	Genesee	.72		.02	T.			.22								T.				.02	.12					.14	T.	.86	.01			2.11
Romulus	Oswego																															
Scottsville	do		.90					.22													.25						1.80		1.35			4.52
Shortsville	do	.47	.03					.19												.04	.16	.05				.89		.82				2.65
Skaneateles	do	.77					.30	.21												.11	.82	.01					.24	.08				2.54
Syracuse	do	.50		T.				.31						T.		.03				.03	.36	.14				.25	.37	.10	.01			2.10
Tupper Lake	Raquette	.66		.25				1.45						.50		.04	.44			.04							1.05					4.43
Volusia	Lake Erie	.43						.98								T.	.46			T.	1.12	.53				.10	T.		T.			3.62
Wanakena	Oswegatchie																															
Watertown	Black	.03	.07		.07			1.09						T.	.04	.04	.14			.18	.04						.07	T.				1.77
Wedgwood	Oswego	.11	.08					.66								T.				T.	.44	.17				.08		.34				1.88
Westfield	Lake Erie	.56						.79								T.	.29			.13		1.05				.17	T.	T.	.09			3.08
York	Genesee	.30	.17					.23								T.				.01	.24	.10				.47	T.	1.05	.04			2.61
Vermont.																																
Burlington	L. Champlain	.03	.04	.04			.13	.51		.01				T.		.21	.73	T.		T.	T.						.41	.11				2.22
Cornwall	do																															
Enosburg Falls	do	T.	.45	T.	.15		T.	.90	T.	.12	T.			T.			.73	1.18	T.			T.					T.	1.32				4.85
Hyde Park	do																															
Northfield	do	.04	.01	.12	.19		T.	.06								.08	.57	T.		.05	.02						.15	T.				1.29
Wells	do		.23		.14	.07		.05								.60					.23											1.32

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.

‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for June, 1913. District No. 4, Lake Region.*

Date.	Duluth, Minn.		Wisconsin.						Chicago, Ill.		Fort Wayne, Ind.		Upper Michigan.								Lower Michigan.					
			Florence.		Green Bay.		Milwaukee.						Escanaba.		Ewen.		Houghton.		Marquette.		Sault Ste. Marie.		Alpena.		Battle Creek.		Cadillac.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	71	51	72	57	78	52	83	55	84	56	79	64	75	51	72	42	66	46	70	47	65	40	74	47	81	57	75	55
2....	72	48	71	43	75	48	67	52	71	55	74	54	62	44	73	49	63	45	68	45	67	35	62	42	76	48	72	43
3....	63	44	64	48	69	52	70	53	74	55	81	59	64	45	61	40	59	42	60	41	54	37	66	46	80	57	67	55
4....	70	43	72	33	67	46	59	49	62	52	71	52	58	40	72	31	70	39	64	40	63	35	64	40	73	47	66	40
5....	60	45	74	52	67	52	69	51	79	61	76	55	61	50	80	45	78	48	78	54	72	38	66	43	77	49	74	41
6....	62	46	76	49	77	49	85	45	91	50	89	60	74	42	74	40	72	41	74	38	67	41	79	48	89	62	77	53
7....	50	37	52	34	54	41	47	40	50	44	71	46	48	37	63	34	52	36	47	37	46	36	54	39	60	49	54	36
8....	54	38	.....	.....	56	37	53	39	51	45	59	39	55	39	63	28	56	36	51	35	52	36	56	37	60	37	58	33
9....	54	41	69	28	61	40	58	41	56	47	62	40	61	36	69	28	62	34	54	36	59	37	56	37	65	36	65	34
10....	71	45	72	40	69	42	61	47	62	49	67	42	64	44	74	36	72	41	72	44	70	36	72	40	71	36	70	37
11....	77	50	80	48	76	48	74	51	71	54	76	45	68	46	78	39	78	58	72	55	69	45	79	46	78	41	74	50
12....	83	59	84	50	81	53	79	58	76	59	80	51	76	50	84	49	84	60	85	60	80	42	84	50	80	42	78	50
13....	85	48	88	59	84	56	84	61	86	64	83	53	81	60	87	57	80	52	82	50	76	50	89	59	83	42	82	56
14....	61	42	79	52	82	61	87	61	88	67	88	58	67	57	80	47	76	48	83	44	72	53	65	55	90	50	83	67
15....	88	61	90	59	90	63	91	61	94	68	91	66	84	57	86	49	84	55	85	53	77	54	84	60	92	64	85	61
16....	80	57	83	62	92	68	89	61	98	66	95	70	87	67	80	60	79	57	78	63	69	53	90	61	95	64	90	68
17....	58	39	75	49	73	62	73	56	78	64	91	68	70	53	74	45	59	46	66	45	71	48	69	53	89	64	83	59
18....	62	43	85	49	83	58	76	54	79	59	86	62	65	53	91	50	66	47	66	45	68	47	60	51	87	60	85	54
19....	59	47	74	59	74	63	93	62	95	74	95	65	68	57	84	53	64	54	60	49	63	49	73	55	95	65	81	59
20....	78	54	79	61	67	62	79	57	88	63	89	67	71	57	83	45	74	51	62	45	72	47	69	53	87	66	70	64
21....	79	53	78	48	76	60	65	54	63	58	71	59	66	52	84	50	74	49	65	46	62	47	67	52	70	65	73	55
22....	75	53	.....	.....	80	57	68	55	69	59	74	54	70	55	84	46	79	55	78	56	75	44	75	48	80	52	77	60
23....	82	51	80	47	78	55	71	57	74	62	78	53	72	58	83	52	82	55	84	64	82	46	72	56	83	53	80	51
24....	66	48	83	49	84	58	84	61	83	70	84	67	71	56	84	50	79	58	84	55	84	50	72	55	88	53	84	60
25....	79	53	83	66	80	68	81	63	85	73	89	68	71	60	86	58	86	62	82	64	83	59	81	62	91	61	79	68
26....	79	65	86	64	84	68	92	72	91	74	92	71	75	63	86	62	83	65	76	56	78	62	87	66	94	70	83	71
27....	65	48	84	69	93	71	95	74	96	76	94	69	75	63	83	60	65	51	74	47	77	57	77	63	96	70	91	72
28....	52	44	85	63	84	66	87	72	88	81	96	73	74	63	85	61	75	48	78	47	75	58	66	59	97	72	84	68
29....	80	49	95	66	94	72	87	69	90	77	94	69	80	66	93	62	91	58	95	68	82	57	80	56	94	71	90	65
30....	80	62	90	73	91	72	95	75	99	79	98	72	83	72	86	62	86	71	93	72	91	59	97	68	100	70	91	70
Mns..	69.8	48.8	78.8[b]	52.8[b]	77.3	56.7	76.7	56.9	79.0	62.0	82.4	59.0	69.9	53.1	79.4	47.7	73.1	50.3	72.9	50.0	70.7	46.6	72.8	51.6	83.4	55.8	77.4	55.2

Date.	Lower Michigan.						Ohio.								Erie, Pa.		New York.								Vermont.			
	Detroit.		Muskegon.		Saginaw, West Side.		Cleveland.		Lima.		Sandusky.		Toledo.				Buffalo.		Canton.		Rochester.		Syracuse.		Burlington.		Northfield.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	82	57	74	54	81	52	81	54	80	60	81	57	79	60	78	53	70	54	70	55	78	54	77	53	75	51	75	39
2....	69	49	72	47	73	48	60	54	76	53	62	54	66	54	61	51	58	48	66	46	68	48	64	49	66	48	66	42
3....	81	50	69	61	78	51	76	54	77	51	79	53	78	55	76	52	64	53	72	51	77	49	77	50	77	48	77	42
4....	71	47	66	47	70	43	62	55	72	53	67	54	71	50	61	52	63	50	66	46	67	51	63	51	66	49	66	47
5....	72	54	76	53	77	48	70	51	76	48	67	52	74	55	63	46	68	50	72	46	67	48	68	49	73	41	72	38
6....	87	58	80	63	88	57	88	58	90	57	90	68	88	61	85	57	75	57	78	49	82	54	83	56	74	52	75	44
7....	69	41	65	44	53	42	74	50	64	63	74	49	73	42	78	51	68	47	65	43	69	49	72	47	72	49	72	46
8....	55	39	62	39	55	40	51	48	59	39	55	50	54	39	51	46	54	41	53	37	55	43	50	41	52	42	52	37
9....	60	41	69	40	60	39	54	47	63	37	58	50	58	40	53	42	57	42	60	35	60	43	56	37	58	40	56	33
10....	67	45	62	39	72	40	61	45	69	39	64	46	65	44	60	43	57	47	68	38	70	40	65	43	70	35	69	30
11....	77	52	70	47	78	45	68	48	75	38	74	48	76	51	66	51	59	53	72	49	75	58	75	52	79	49	79	41
12....	80	56	77	56	81	48	75	60	81	42	78	60	81	57	71	55	63	53	77	51	80	53	74	56	70	56	78	46
13....	84	58	74	58	86	54	78	59	85	47	83	57	85	57	75	59	63	58	75	56	81	57	81	58	77	55	81	48
14....	86	61	86	51	88	57	82	64	90	51	86	61	88	63	77	63	70	57	71	51	76	62	73	57	68	50	70	44
15....	90	66	83	59	90	67	88	65	91	63	90	65	90	66	86	65	76	63	85	45	87	62	86	53	80	45	80	39
16....	95	70	79	62	96	69	90	70	97	63	93	70	94	65	82	69	69	61	84	61	88	65	87	67	85	61	86	61
17....	82	60	83	66	79	59	79	67	91	65	81	67	85	65	72	61	76	59	68	47	76	59	74	57	68	52	67	46
18....	77	59	84	60	83	55	75	63	87	63	70	64	74	62	69	56	73	53	70	40	68	54	71	48	67	44	66	39
19....	84	60	86	69	90	64	90	63	95	64	91	62	90	64	84	57	75	56	68	43	73	51	64	49	69	43	70	36
20....	85	66	83	65	74	62	88	67	92	67	90	68	92	69	79	65	70	61	74	53	70	58	68	59	75	56	72	54
21....	69	58	74	62	69	55	68	60	77	65	71	62	71	58	70	60	68	56	71	54	69	53	66	57	69	56	70	47
22....	74	55	77	56	78	52	66	57	79	53	69	59	70	57	67	51	74	53	73	47	78	47	74	50	70	44	71	40
23....	78	57	83	55	81	56	74	56	81	51	72	57	75	58	76	58	80	60	82	50	78	55	81	56	80	49	79	44
24....	86	64	83	65	88	60	83	66	88	65	86	66	87	66	82	64	83	64	84	57	82	63	82	63	84	57	82	47
25....	89	69	78	68	89	69	88	68	91	67	91	65	91	69	87	70	81	69	86	54	87	65	88	62	85	60	79	57
26....	86	70	84	68	89	69	87	71	94	69	92	72	93	70	83	68	75	67	82	67	86	71	83	71	77	65	69	57
27....	95	73	87	70	93	73	88	76	98	67	94	74	94	74	83	73	78	69	87	70	86	68	81	69	87	68	87	61
28....	84	70	88	73	79	67	83	69	98	70	81	72	89	71	76	67	75	67	79	53	76	63	76	60	75	56	74	50
29....	86	69	88	70	89	65	75	66	93	68	78	69	83	70	78	62	81	64	78	46	81	55	81	54	75	49	78	43
30....	95	69	89	78	98	67	90	67	101	62	97	66	97	69	90	66	80	68	86	54	91	61	88	60	85	50	85	44
Mns..	79.8	58.1	77.7	58.2	80.2	55.8	76.4	59.9	83.7	56.7	78.8	60.2	80.4	59.4	74.0	57.8	70.1	56.7	74.1	49.8	76.0	55.0	74.3	54.5	73.6	50.7	73.4	44.7

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.

§§ Instruments are read in the morning: the maximum temperature then read is charged to the preceding day on which it almost always occurs.

CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 5, UPPER MISSISSIPPI VALLEY.

GEO. M. CHAPPEL, District Editor.

GENERAL SUMMARY.

June, 1913, in the upper Mississippi Valley was a month of marked temperature extremes. In some parts of Illinois both the highest and the lowest June temperatures in the last 25 years were experienced; and this fact is rendered more notable because these extremes occurred within 8 days of each other. Except in the Dakotas, a temperature above 100° and below 40° occurred in each of the States of the district. As a whole the month was warm, having been one of the half dozen warmest Junes in the last 40 years. There was a deficiency in rainfall in all parts of the district save over limited areas, the dearth of moisture having been felt especially in southern Illinois, where considerable injury to crops resulted. Several local storms of more or less severity occurred, but as a whole the month was freer than usual from storms of that class. Lightning killed 3 persons on the 6th near Freeport, Ill., and at Tiskilwa, in the same State, on the following day there was a damaging hailstorm, corn and small fruit suffering most. A rainstorm approaching the proportions of a cloud-burst occurred at Grinnell, Iowa, on the 6th; in three and one-half hours 4.75 inches of rain fell. The resulting damage was considerable. On the 16th a severe hailstorm was experienced at Luxemburg, Iowa, and a tornado cloud was noted at Colesburg, a near-by town, about the same time. The cloud, however, was high in the air, and no damage resulted. An exceptionally heavy rain fell at Quincy, Ill., on the 24th–25th, 5.04 inches having been measured. Owing to the hilly character of the city some damage was caused by washouts and cave-ins. The cool wave that prevailed during the closing days of the first decade was attended by frosts as far south as central Illinois, and much injury resulted to vegetation in Wisconsin.

The following table presents in condensed form the leading features of climatological interest for the various parts of the district:

Parts of States within District 5.	Temperature.				Precipitation.					
	Mean.	Departure.	Highest.	Lowest.	Average.	Departure.	Greatest total.	Least total.	Average snowfall.	Average number of days with precipitation.
North Dakota	65.6	+3.0	99	29	2.23	−1.33	6.95	0.81	.....	8
Minnesota	68.0	+3.3	103	26	3.12	−0.71	6.75	0.78	.....	7
South Dakota	68.4	+0.1	96	34	1.67	−1.88	2.45	0.89	.....	6
Wisconsin	67.6	+2.3	100	23	3.17	−0.98	8.31	1.00	.....	7
Iowa	71.5	+2.7	102	33	3.48	−0.86	8.95	0.79	.....	7
Missouri	76.0	+3.1	107	34	3.07	−1.31	5.45	0.79	.....	6
Indiana	70.7	+2.9	104	35	1.64	−1.88	2.47	0.79	.....	5
Illinois	75.3	+2.3	106	33	2.67	−1.09	6.18	0.89	.....	6

TEMPERATURE.

The mean temperature for the month was 69.8°, or 2.7° higher than the normal. It was one of the half dozen warmest Junes since 1870, and with the exception of June, 1911, the warmest since 1901. The departure of the mean temperature from the normal was unusually uniform over the district, and ranged between 2° and 3°. The average temperature was above 75° south of the latitude of Hannibal, Mo. Cairo, Ill., with a mean of 78.3°, was the warmest point. Over the cooler portions of the district, including part of North Dakota, and northern Minnesota and Wisconsin, the mean temperature did not exceed 65°; the lowest average was 61.3°, at Bowbells, N. Dak.

The notable features of the temperature conditions of the month were the unusually low readings during the closing days of the first decade, the high temperatures that followed within a week, and a second warm period near the close of the month. A high barometer area of great magnitude, with readings higher than ever previously recorded in June, covered the district for several days from about the 7th, and caused the coolest June weather on record in parts of eastern Iowa and in Illinois. The line of freezing temperature extended southward almost to those States, 33° being reported from 2 stations therein. Immediately following this cool period was a warm wave of unusual intensity for so early in the season, record-breaking high temperatures for June occurring at many stations in the southern districts. The warm wave that prevailed near the close of the month was almost as intense as its predecessor, in fact, the heat was more oppressive, owing to the higher humidity that obtained.

PRECIPITATION.

The average precipitation for the district was 2.99 inches, or 0.98 inch less than the normal. The month was comparatively dry over much of the district. As illustrating this feature it may be stated that of the 235 stations in the district that have normals only 49 reported an excess of precipitation. Also, in each of the State areas that comprise the district the average rainfall was deficient. Except in the small South Dakota and Indiana areas the precipitation reached 5 or more inches at some point in each of the States. The greatest amount reported was 8.95 inches, at Lacona, Iowa. As a rule the driest part of each State had a little less than an inch of rainfall. Warren, Minn., reported the least amount, 0.78 inch. Most of the precipitation of the month was timely, but the latter half of the month was considerably wetter than the first half. The driest period covered the 7th–12th, when a great area of high pressure dominated

the weather over the district. The average number of rainy days was 7.

RIVERS.

The Illinois River at La Salle was above flood stage from the 1st to 7th, and most of the bottom lands in that vicinity will not be farmed this year, owing to the late floods. There was no "June" rise this year in the rivers of the Dubuque, Iowa, district, the rivers falling almost continuously throughout the month. In the Davenport, Iowa, district the stages averaged 5 feet lower at the close of June than at the beginning of the month. While the river was lower than usual in that district at the close of the month, there was still sufficient water for navigation purposes.

MISCELLANEOUS.

The prevailing winds were southwesterly. In the Iowa area the southwesterly component was very marked. The highest velocity reported was 64 miles an hour from the northwest, at St. Paul, Minn., on the 17th. Sunshine was much above the normal in all parts of the district. The average number of clear days was 19, partly cloudy, 8; cloudy, 3.

ERRATA.

Report for May, 1913: Wisconsin; monthly mean temperature at Merrill published 54.4, should be 53.8. Osceola, date of highest temperature published 28, should be 27. Iowa, Columbus Junction, greatest daily range of temperature published 36, should be 34. Delaware, monthly mean temperature published 56, should be 57.6. Charles City, total precipitation published 5.55, should be 5.53. Keokuk, days with 0.01 inch or more precipitation published 15, should be 16. Whitten, greatest daily range of temperature published 33, should be 39.

TABLE 1.—*Climatological data for June, 1913. District No. 5, Upper Mississippi Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
North Dakota.																				
Amenia	Cass	954	17	67.8	+ 3.7	96	28	35	7	36	3.96	+ 0.13	2.10	0	7	19	4	7	sw.	C. E. Wood.
Bottineau	Bottineau	1,638	21	65.5	+ 7.4	95	12	35	7	37	1.82	− .59	0.48	0	11	7	16	7	se.	H. F. Steinmeir.
Bowbells	Burke	1,958	1	61.3	.....	95	23	33	3	42	3.05	.....	0.75	0	11	14	6	10	.....	G. H. Phelps.
Cando	Towner	1,488	12	66.8[e]	+ 5.9	98[e]	23	30[e]	7	45[e]	2.38	− 1.58	1.00	0	8	.....	.....	.....	.....	E. T. Judd.
Crosby	Divide	.....	6	62.4	.....	89	11	35	7	37	3.33	.....	1.30	0	10	21	4	5	se.	H. C. Kaschau.
Devils Lake	Ramsey	1,482	8	65.3	+ 2.7	96	28	34	7	41	1.28	− 2.25	0.35	0	11	17	9	4	s.	U. S. Weather Bureau.
Donnybrook	Ward	1,760	14	63.4	+ 1.9	93	23	32	7	40	1.02	− 1.80	0.31	0	8	.....	.....	.....	se.	C. J. De Vore.
Dunseith	Rolette	.....	17	65.0	+ 3.4	93[b]	12	36[b]	7	34[b]	1.23	− 1.79	0.67	0	7	.....	.....	.....	sw.	C. E. Goodsell.
Eckman (near)	McHenry	.....	7	66.6[k]	.....	99[k]	22	42[k]	14†	50[k]	2.53	.....	0.75	0	6	8	16	6	se.	Geo. Yenny.
Fessenden	Wells	1,610	1	65.3	.....	99	23	31	7	49	1.90	.....	0.45	0	10	16	11	3	se.	G. T. Seymour.
Forman	Sargent	1,249	21	68.4	.....	95	28	36	7	36	3.36	.....	0.90	0	10	16	9	5	nw.	A. Maltby.
Grafton	Walsh	827	21	65.9	+ 2.6	98	28	29	8	42	1.62	− 1.73	0.83	0	8	23	3	4	s.	A. R. T. Wylie.
Granville	McHenry	1,504	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. A. Christianson.
Hannah	Cavalier	1,568	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Moffatt.
Hansboro	Towner	.....	5	63.8	.....	93	23	30	8	40	0.82	.....	0.25	0	6	26	2	2	se.	Geo. Dale.
Hillsboro	Traill	901	7	67.8	.....	95	28	35	7	40	2.50	.....	1.20	0	7	24	6	0	se.	F. E. Mayall.
Lakota	Nelson	1,579	12	62.8	+ 0.7	94	28	29	7	37	2.35	− 1.10	1.10	0	9	12	17	1	sw.	C. R. Pettes.
Langdon	Cavalier	1,615	17	63.6	.....	93	12†	30	7	42	2.63	.....	0.51	0	9	14	0	16	w.	J. Woolner.
Larimore	Grand Forks	1,134	18	66.5	+ 3.9	99	28	30	7	41	2.30	− 1.15	0.60	0	10	21	5	4	nw.	J. M. Freeman.
Lisbon	Ransom	1,091	9	67.5	.....	98	28	34	9	42	5.31	.....	1.30	0	12	17	6	7	nw.	W. S. Adams.
McKinney	Renville	1,640	19	65.3	+ 4.4	96[b]	12†	29[b]	7	50[b]	1.65	− 1.81	0.65	0	5	.....	.....	.....	se.	N. P. Swenson.
McLeod	Ransom	.....	1	67.2	.....	94	28	34	7	40	2.85	.....	1.15	0	9	20	6	4	s.	Martin Reinholt.
Manfred	Wells	1,605	10	65.0	+ 2.4	97	23	31	7	44	2.30	− 1.13	0.79	0	8	22	4	4	se.	P. B. Anderson.
Mayville	Traill	975	17	67.2	+ 1.9	97	28	32	7	44	1.70	− 1.31	0.60	0	7	24	6	0	sw.	W. C. Gould.
Milnor	Sargent	1,097	1	.....	.....	.....	.....	.....	.....	.....	4.01	.....	1.18	0	9	10	15	5	.....	Hj. Edman.
Minot	Ward	1,557	17	65.8	+ 2.5	96	23	35	8	37	1.14	− 2.10	0.50	0	9	19	6	5	se.	Louise Bates.
Minto	Walsh	820	20	66.8	+ 2.9	96	28	29	7	41	0.81	− 2.53	0.45	0	5	21	7	2	sw.	S. S. Marsh.
Oriska	Barnes	1,270	8	67.9	.....	98	28	32	7	40	2.27	.....	0.78	0	12	4	26	0	nw.	J. J. Taylor.
Park River	Walsh	998	9	66.6	.....	98	28	29	8	42	1.11	.....	0.40	0	7	24	4	2	nw.	P. J. Prochaska.
Pembina	Pembina	789	39	64.0	+ 1.3	95	28	32	7	45	1.74	− 1.91	0.42	9	9	20	4	6	s.	C. W. Shumaker.
Power	Richland	1,020	21	66.5	+ 2.2	95	28	33	7	38	6.95	+ 3.47	2.95	0	7	18	10	2	se.	J. A. Power.
Towner	McHenry	.....	11	65.9	+ 3.3	94	23	32	7	43	1.17	− 2.70	0.30	0	8	9	19	2	e.	B. Bagley.
University	Grand Forks	830	21	66.6	+ 3.2	97	28	35	7	40	1.21	− 2.32	0.25	0	11	22	4	4	s.	U. S. Weather Bureau.
Wahpeton	Richland	962	19	67.0[e]	+ 1.4	96[e]	28	35[e]	7	39[e]	4.36	+ 0.45	1.45	0	7	.....	.....	.....	ne.	Fred E. Smith.
Walhalla	Pembina	966	6	.....	.....	.....	.....	.....	.....	.....	1.82	.....	0.50	0	6	.....	.....	.....	.....	Ivanhoe Lee.
Westhope	Bottineau	.....	7	65.6	.....	95	23	35	7	41	2.30	.....	0.86	0	9	17	9	4	nw.	W. A. Meddaugh.
Willow City	....do	1,471	21	64.9	+ 3.1	93	12†	29	7	40	1.61	− 1.92	0.80	0	9	10	16	4	w.	M. A. Ostby.
Minnesota.																				
Albert Lea	Freeborn	1,229	22	70.9	+ 4.1	96	15†	39	8	32	5.44	+ 1.40	2.80	0	5	16	12	2	sw.	Edward Carey.
Alexandria	Douglas	1,391	19	68.0	+ 3.0	94	18†	40	9	44	2.46	− 1.22	1.12	0	9	16	7	7	se.	P. O. Unumb.
Angus	Polk	870	11	66.2	+ 3.8	97	28	33	7	52	1.75	− 1.01	0.60	0	10	17	12	1	s.	John Nadvornik.
Bagley	Clearwater	.....	7	.....	.....	.....	.....	.....	.....	.....	2.98	.....	1.37	0	4	.....	.....	.....	.....	Jens Nelson.
Baudette	Beltrami	1,084	3	66.4	.....	95	29	35	8	39	3.22	.....	0.66	0	8	21	9	0	nw.	J. A. Gjelhaug.
Beardsley	Bigstone	1,090	17	69.6	+ 5.2	100	28	32	9	45	2.06	− 1.55	0.97	0	10	6	23	1	se.	G. L. Fitzgerald.
Bemidji	Beltrami	1,400	9	.....	.....	.....	.....	.....	.....	.....	2.40	.....	0.65	0	8	.....	.....	.....	.....	C. W. Warfield.
Bird Island	Renville	1,039	23	68.7	+ 2.8	96	18	35	8†	35	5.86	+ 2.11	2.00	0	10	17	9	4	sw.	Dr. F. L. Puffer.
Brainerd	Crow Wing	1,215	7	67.8	.....	95	28	35	8	43	3.51	.....	1.16	0	10	22	5	3	se.	Theodore Miller.
Caledonia	Houston	1,179	20	69.8	+ 3.1	92	29	41	8	26	2.89	− 1.29	0.83	0	5	16	7	7	sw.	W. D. Belden.
Campbell	Wilkin	984	7	67.2	.....	97	18	33	7	45	5.16	.....	1.62	0	13	20	1	9	se.	J. T. Nelsess.
Cass Lake	Cass	1,300	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Burns.
Collegeville	Stearns	1,282	20	68.4	+ 2.0	94	15	39	7	41	3.34	− 0.09	0.80	0	11	20	6	4	s.	F. Tembreull.
Crookston	Polk	863	24	67.3	+ 3.2	97	28	36	7	37	1.84	− 1.63	0.80	0	8	22	1	7	s.	A. G. Andersen.
Detroit	Becker	1,364	17	64.2	+ 1.5	93	28	31	7	39	5.32	+ 1.32	2.20	0	10	16	14	0	se.	G. W. Peoples.
Ely	St. Louis	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Iver Wisted.
Fairmont (near)	Martin	1,240	26	70.0	+ 3.7	95	17	39	9	36	5.23	+ 1.15	2.15	0	7	17	11	2	s.	W. F. Wherland.
Faribault	Rice	1,003	15	70.8[e]	+ 5.2	96[e]	15	39[e]	9	37[d]	3.00	− 1.36	1.40	0	3	26	3	1	.....	Dr. A. B. Moulton.
Farmington	Dakota	902	25	70.9	+ 4.6	100	15	36	8	42	4.90	+ 1.02	2.08	0	6	17	6	7	sw.	E. D. Akin.
Fergus Falls	Otter Tail	1,210	21	69.2	+ 3.9	96	28	42	7	37	3.39	− 0.23	1.10	0	13	22	7	1	se.	C. E. Kissinger.
Fort Ripley	Crow Wing	1,136	5	66.5	.....	95[a]	28	28[a]	8	45	3.58	− 0.56	1.75	0	7	18	0	12	s.	J. J. Tucker.
Fosston	Polk	1,289	3	63.4	.....	89	29	34	7	34	4.02	.....	1.41	0	9	18	10	2	sw.	O. N. Hem.
Glencoe	McLeod	1,000	16	69.9	+ 4.5	97	25	36	8	40	.....	.....	.....	0	.....	26	1	3	s.	L. V. Koos.
Grand Meadow	Mower	1,338	25	69.6	+ 3.0	94	16†	35	9	32	2.95	+ 2.27	1.10	0	7	24	5	1	s.	C. F. Greening.
Gull Lake Dam	Cass	1,215	2	67.4	.....	96	29	32	8	43	3.30	.....	1.28	0	12	16	14	0	s.	U. S. Engineer Corps.
Hallock	Kittson	815	14	65.6	+ 2.8	96	28	31	7	46	1.94	− 1.36	0.70	0	8	15	6	9	s.	D. A. Robertson.
Halstad	Norman	870	7	66.2	.....	96[a]	28	35	7	39[a]	2.39	.....	0.96	0	8	22	0	8	s.	A. G. Holstrom.
Hinckley	Pine	1,050	8	65.6	.....	95[a]	27	33[a]	8†	45[a]	2.25	.....	0.70	0	8	13[a]	12[a]	4[a]	s.	W. R. Newman.
International Falls	Koochiching	1,112	10	66.4	+ 4.5	98	29	32	8	41	3.17	− 0.86	1.04	0	7	18	10	2	s.	C. M. Ardies.
Itasca State Park	Clearwater	1,500	2	64.6	.....	94	28	29	7	40	4.45	.....	2.08	0	9	18	12	0	sw.	J. A. Stillwell.
Lake Crystal	Blue Earth	.....	5	69.7	.....	94[a]	15†	41[a]	9†	38[a]	2.33	.....	1.10	0	5	24	4	2	s.[b]	W. P. Cobb.
Leech Lake Dam	Cass	1,301	25	65.5	+ 2.7	94	28	32	8	38	3.02	− 1.07	0.87	0	9	17	12	1	sw.	U. S. Engineer Corps.
Little Falls	Morrison	.....	4	68.8	.....	95	27†	37	7	40	.....	.....	.....	0	.....	23	5	2	s.	Wm. Batters.
Littlefork	Koochiching	.....	3	66.8	.....	96	29	38	20†	48	2.51	.....	0.50	0	9	16	10	4	.....	O. C. Olson.
Long Prairie	Todd	1,299	21	67.4	+ 2.7	95	18†	30	8	43	2.17	− 1.90	0.58	0	6	18	12	0	se.	A. L. Sheets.
Lyndon	Lyon	1,175	20	68.8	+ 3.5	96	16	31	8	43	2.65	− 1.23	1.40	0	5	22	7	1	sw.	J. W. Rouse.
Mankato	Blue Earth	758	15	.....	.....	.....	.....	.....	.....	.....	2.91	− 1.85	1.13	0	4	26	2	2	sw.	C. G. Staley.
Milaca	Mille Lacs	1,072	14	67.0[g]	+ 4.4	94[g]	28	33[g]	8	49[g]	2.04	− 2.40	0.94	0	5	10[g]	12[g]	1[g]	sw.[g]	C. H. Foss.
Milan	Chippewa	955	19	67.8	+ 2.6	96	28	37	8†	36	0.88	− 2.84	0.52	0	6	14	16	0	se.	O. K. Opjorden.
Minneapolis	Hennepin	918	22	70.6	+ 2.9	95	28	43	7	38	2.21	− 1.80	0.89	0	7	15	12	3	s.	U. S. Weather Bureau.
Montevideo	Chippewa	900	23	70.0	+ 3.6	96	18	39	9	39	1.96	− 1.92	1.09	0	6	17	11	2	se.	L. G. Moyer.
Moorhead	Clay	935	32	67.9	+ 3.6	96	28	35	7	34	3.07	− 1.06	0.89	0	9	23	7	0	se.	U. S. Weather Bureau.
Mora	Kanabec	.....	8	66.4	.....	96	28	34	4†	49	1.82	.....	0.43	0	10	13	14	3	w.	Hans Peterson.
Morris	Stevens	1,170	28	67.8	+ 2.0	97	28	38	7	41	1.19	− 2.67	0.60	0	7	23	4	3	s.	D. T. Wheaton.
New London	Kandiyohi	1,215	19	69.0	+ 3.5	93	29	38	9	26	1.62	− 2.10	0.98	0	6	18	10	2	se.	Harold Swenson.
New Richland	Waseca	1,180	19	70.6	+ 3.6	95	15	38	9	30	5.09	+ 0.84	2.24	0	5	19	11	0	s.	N. O. Tyrholm.
New Ulm	Brown	791	33	71.6	+ 2.5	98	18†	40	8†	38	4.47	− 0.04	1.85	0	7	12	7	11	s.	A. L. Henle.
Osakis	Douglas	1,343	5	68.1	.....	93	12†	39	8	44	2.09	.....	0.48	0	9	18	8	4	s.	J. B. Johnson.
Park Rapids	Hubbard	1,426	23	66.5	+ 3.4	95	28	37	4	38	3.17	− 0.89	0.90	0	13	16	6	8	s.	Dr. P. A. Walling.
Pierz	Morrison	.....	.....	71.3[i]	.....	93[i]	28	.....	44[i]	44[i]	2.40	.....	1.30	0	3	16[i]	2[i]	3[i]	s.[i]	E. H. Kerkhoff.
Pine River Dam	Crow Wing	1,251	26	66.2	+ 2.1	93	28	33	8†	44	4.43	− 0.13	1.00	0	9	19	11	0	s.	U. S. Engineer Corps.
Pokegama Falls	Itasca	1,280	26	64.2	+ 2.5	92	28	30	8	40	3.48	− 0.81	1.35	0	10	20	8	2	s.	Do.
Redlake	Beltrami	1,152	5	65.8	.....	94	28	40	3†	39	3.53	.....	1.30	0	6	16	14	0	s.	A. C. Goddard.
Red Lake Falls	Red Lake	.....	.....	68.0	.....	100	24	34	7	42	.....	.....	.....	0	.....	28	1	1	sw.	E. G. Buse.
Red Wing	Goodhue	680	17	.....	.....	.....	.....	.....	.....	.....	2.84	− 1.36	1.00	0	8	15	6	9	sw.	Louis Back.

TABLE 1.—*Climatological data for June, 1913. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Minnesota—Contd.																				
Redwood Falls	Redwood	1,050	6	.....	.....	.....	.....	.....	.....	.....	2.23	− 1.69	0.90	0	4	21	0	9	se.	Hockett Bros.
Reeds Landing	Wabasha	681	17	.....	.....	.....	.....	.....	.....	.....	6.75	.....	4.18	0	3	20	3	7	se.	John Deschneau.
Rochester	Olmstead	991	8	70.1	.....	99	15	33	9	43	1.58	.....	0.30	0	10	25	5	0	s.	Mary P. Leslie.
Roseau	Roseau	1,040	3	64.1	.....	94	28	26	7	46	2.49	− 2.43	1.00	0	5	24	5	1	n.	M. J. Hegland.
St. Charles	Winona	850	22	69.7	+ 2.9	96	15	33	9	37	3.05	− 1.02	1.43	0	11	21	6	3	sw.	S. W. Gleason.
St. Cloud	Sherburne	1,020	36	70.4	+ 4.8	96	18	37	8	48	3.05	− 1.36	1.38	0	7	19	9	2	sw.	State Reformatory.
St. Paul	Ramsey	940	42	70.0	+ 2.6	95	15	43	8	35	3.20	− 1.10	1.00	0	4	21	8	1	s.	U. S. Weather Bureau.
St. Peter	Nicollet	825	18	70.2	+ 2.9	95	15	37	9	32	3.99	+ 0.43	1.37	0	8	10	19	1	s.	State Hospital.
Sandy Lake Dam	Aitkin	1,234	20	64.2	+ 1.4	93	28	33	4	39	4.72	.....	1.70	0	8	21	1	8	s.	U. S. Engineer Corps.
State Sanatorium	Cass	.....	5	65.2	.....	96[d]	27	38	7†	34	2.35	.....	0.74	0	5	26	1	3	s.	Dr. G. W. Beach.
Stillwater	Washington	694	7	.....	.....	.....	.....	.....	.....	.....	2.46	.....	1.60	0	7	20	9	1	nw.	Oscar Ostrom.
Taylors Falls	Chisago	759	6	69.8	.....	97	28†	40	4†	37	0.88	.....	0.47	0	6	23	0	7	s.	Minneapolis General Electric Co.
Thief River Falls	Pennington	1,137	2	66.0	.....	96	28	32	7	37	2.28	.....	0.85	0	7	14	14	2	s.	E. W. Lown.
Tracy	Lyon	.....	.....	72.2	.....	98	18	39	8	39	0.78	.....	0.50	0	4	19	10	1	.....	A. H. Rowland.
Warren	Marshall	859	1	69.0	.....	103[a]	28	33[a]	7	45[a]	1.98	.....	0.42	0	8	22	7	1	s.	P. H. Holm.
Warroad	Roseau	1,069	3	64.3	.....	95	29	31	8	40	6.17	+ 1.55	3.23	0	7	17	10	3	se.	G. A. Sawyer.
Winnebago	Faribault	1,100	15	70.3	+ 3.0	96	17	39	8†	38	3.65	− 0.14	0.95	0	8	23	5	2	se.	H. H. Haight.
Winnibigoshish	Itasca	1,300	25	65.3	+ 2.3	94	28	34	7	44	3.49	− 0.02	1.11	0	6	15	12	3	s.	U. S. Engineer Corps.
Winona	Winona	700	17	75.6	+ 7.1	100	29	40	9	31	3.97	− 0.29	2.12	0	6	21	7	2	s.	P. C. Myers.
Worthington	Nobles	1,593	18	67.2	+ 1.9	90	17	38	8	34	2.23	.....	0.90	0	4	17	12	1	sw.	M. P. Mann.
Zumbrota	Goodhue	917	17	68.8	+ 2.8	95	15	32	9	39	1.69	.....	0.90	0	4	21	1	9	se.	W. C. Rowell.
South Dakota.																				
Milbank	Grant	1,148	22	70.0	+ 0.1	96	28	34	9	43	0.89	− 1.88	0.50	0	5	16	9	5	nw.	Miss Mary Patridge.
Sisseton	Roberts	1,202	7	66.8	.....	96	28	36	10	41	2.45	.....	0.90	0	7	21	5	4	sw.	George Gray.
Wisconsin.																				
Antigo	Langlade	1,489	19	66.2	+ 1.8	95	28	30	8	37	2.77	.....	0.79	0	5	25	1	4	sw.	Elton C. Larzelere.
Barron	Barron	1,115	22	66.9	+ 3.1	92	28†	31	8	40	2.95	− 1.46	0.81	0	6	19	11	0	s.	Wm. A. Kent.
Beloit	Rock	750	47	69.6	+ 1.5	99	29	34	8	36	1.85	− 2.11	0.51	0	9	20	9	1	s.	Smith Observatory.
Big St. Germain Dam	Vilas	1,590	3	64.9	.....	94	29	29	8†	42	2.60	.....	0.64	0	7	21	7	2	sw.	Fred Hessen.
Brodhead	Green	812	15	70.8	+ 2.8	100	28†	34	8	40	1.77	− 1.51	0.41	0	7	20	10	0	sw.	Hector D. Kirkpatrick.
Burnett	Dodge	880	9	66.8	.....	94	28†	33	8	34	4.71	.....	1.42	0	8	12	14	4	sw.	George W. Smith.
Cornell	Chippewa	993	1	66.6[b]	.....	92[b]	28†	34[b]	9	38[b]	2.37	.....	1.16	0	10	27	3	0	sw.	Brunet Falls Mfg. Co.
Cottage Grove	Dane	888	2	.....	.....	.....	.....	.....	.....	.....	3.69	.....	1.58	0	8	21	6	3	sw.	John E. Mellish.
Darlington	Lafayette	867	7	69.1	.....	98	29	30	10	46	1.55	.....	0.85	0	4	13	12	5	sw.	Sever P. Nelson.
Deerskin Dam	Forest	1,685	3	62.2	.....	90	27	25	8†	48	3.20	.....	0.71	0	7	20	9	1	w.	Wm. E. O'Neal.
Delavan	Walworth	920	22	68.4	+ 1.2	99	29	31	8	40	2.06	− 1.20	0.70	0	9	12[m]	2[m]	3[m]	sw.	Elwood S. Austin.
Dodgeville	Iowa	1,220	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	.....	.....	.....	.....	.....	Chas. H. Berryman.
Downing	Dunn	983	11	66.6	+ 2.0	95	28	28	8†	48	2.84	− 1.54	1.40	0	5	20	2	8	se.	Eugene F. Stoddard.
Eau Claire	Eau Claire	800	22	69.5	+ 2.4	96	15	38	8	40	2.27	− 2.13	0.62	0	6	19	11	0	s.	Robert D. Whitford.
Glen Flora	Rusk	1,475	1	65.0	.....	92	28	26	8	42	2.28	.....	1.77	0	4	21	7	2	sw.	G. A. Durgin.
Grand Rapids	Wood	980	14	68.0	+ 1.5	97	29	32	8	40	2.90	− 0.01	0.62	0	12	17	5	8	sw.	Geo. T. Nixom.
Grantsburg	Burnett	1,095	22	68.8[b]	+ 3.6	99[b]	28	30[b]	8	41[b]	1.00	− 3.66	0.40	0	5	22[b]	3[b]	3[b]	s.	Chester Ahlstrom.
Hancock	Waushara	1,091	21	70.6	+ 3.7	100	28†	34	8	34	3.02	− 1.03	1.02	0	9	18	6	6	sw.	Frederick B. Hamilton.
Hatfield	Jackson	973	19	67.8	+ 1.2	96	15	29	10	48	3.29	− 0.83	1.37	0	7	10	15	5	sw.	Wis. Ry., Light & Power Co.
Hayward	Sawyer	1,107	22	70.5	+ 6.9	96	29	32	14	57	.....	.....	.....	0	.....	.....	.....	.....	.....	A. E. Johnson.
Hillsboro	Vernon	1,000	22	67.0	+ 1.8	95	28†	30	9	43	4.02	− 0.03	1.81	0	7	17	12	1	sw.	Emil V. Wernick.
Koepenick	Langlade	1,683	22	64.2	− 0.1	92	29	26	8	46	3.30	− 0.28	1.70	0	7	.....	.....	.....	sw.	Edward S. Koepenick.
La Crosse	La Crosse	714	41	71.2	+ 3.0	97	28	40	8	33	2.90	− 1.53	1.49	0	7	12	13	5	s.	U. S. Weather Bureau.
Lake Mills	Jefferson	857	22	69.0	+ 2.3	98	29	33	8	35	3.34	− 0.49	1.16	0	8	16	12	2	sw.	S. Newton Dexter Smith.
Lancaster	Grant	1,070	22	70.2[a]	+ 2.5	96[a]	28†	38[a]	8†	35[a]	2.92	− 0.90	1.29	0	7	13[e]	12[e]	2[e]	sw.	Edward Pollock.
Long Lake	Oneida	1,592	5	64.0	.....	96	29	23	8†	49	3.64	.....	1.51	0	10	22	6	2	sw.	Louis Frank.
Madison	Dane	974	44	69.0	+ 1.7	95	28	38	8	26	3.73	− 0.37	1.59	0	7	13	12	5	sw.	U. S. Weather Bureau.
Marshfield	Wood	1,276	0	66.5[a]	.....	93	28†	32[a]	8	40[a]	2.70	.....	1.12	0	8	11	13	6	sw.	Agr. Exper. Station.
Mather	Juneau	962	9	66.8	.....	94	28†	30	10	42	2.03	.....	0.59	0	8	18	4	8	w.	Frank Evans.
Mauston	do	882	17	68.8	+ 2.9	94	28†	33	10	37	3.28	− 0.80	1.85	0	5	24	5	1	sw.	Eugene L. Hitchcock.
Meadow Valley	do	974	22	68.4	+ 2.8	99	29	31	8	46	2.52	− 1.33	0.90	0	8	10	19	1	sw.	Charles H. Hohnson.
Medford	Taylor	1,420	24	67.6	+ 2.4	94	28	31	8	37	2.07	− 2.55	0.68	0	6	26	4	0	s.	Wm. Zeit.
Merrill	Lincoln	1,267	7	68.4	.....	95	28†	31	8	42	2.91	.....	1.66	0	4	16	3	11	sw.	O. F. Lueck.
Minocqua	Oneida	1,604	9	66.6	.....	93	28†	30	8	36	3.74	.....	0.97	0	8	15	15	0	sw.	Benjamin W. Applebee.
Mondovi	Buffalo	738	5	68.6	.....	98	15	35	8†	43	2.70	.....	0.85	0	8	20	8	2	sw.	Dr. Chas. Hebard.
Mount Horeb	Dane	1,226	9	68.6	.....	96	29	30	8	34	3.09	.....	1.12	0	6	21	6	3	sw.	W. M. Lewis.
Muscoda	Grant	666	4	70.4	.....	98	19†	36	9	40	5.44	.....	2.53	0	4	23	1	6	sw.	Wm. Hessler.
Neillsville	Clark	996	23	69.8	+ 3.6	100	28	34	8†	44	2.00	− 2.59	0.95	0	3	.....	.....	.....	sw.	Wm. Heaslett.
New Richmond	St. Croix	990	8	70.9	.....	96	28†	39	7	35	5.19	.....	2.10	0	6	15	14	1	sw.	Franc A. R. Van Meter.
Osceola	Polk	806	22	69.4	+ 0.1	96	28†	35	8†	38	1.36	− 3.06	0.80	0	4	14	16	0	s.	Charles W. Staples.
Park Falls	Price	1,492	22	63.4[f]	.....	91[f]	16	31[f]	8	39[f]	3.93	.....	1.91	0	11	21	3	6	s.	Flambeau Paper Co.
Portage	Columbia	809	24	71.0	+ 3.6	98	28†	37	8†	35	2.50	− 1.28	1.24	0	7	24	4	2	sw.	James H. Martin.
Port Edwards	Wood	969	3	68.1	.....	99	29	33	8	43	2.61	.....	0.45	0	10	21	7	2	sw.	Nekoosa-Edwards Pa. Co.
Prairie du Chien	Crawford	628	22	70.1	+ 0.6	99	29	37	10†	44	2.45	1.46	1.05	0	5	17	0	13	s.	James A. Gillis.
Prairie du Sac	Sauk	750	5	70.0	.....	98	29	35	8†	41	4.15	.....	1.86	0	9	24	4	2	sw.	Wis. River Power Co.
Prentice	Price	1,551	15	65.4	+ 3.2	93	28†	28	8	40	2.70	− 1.59	0.75	0	8	18	4	8	s.	Joseph G. Lash.
Rest Lake	Vilas	1,600	0	64.3	.....	94	28	29	8	40	4.13	.....	2.15	0	6	17	8	5	w.	A. F. Miller.
Rhinelander	Oneida	1,550	7	65.8	.....	93	28†	30	8	38	3.66	.....	1.40	0	7	25	2	3	sw.	Rhinelander Power Co.
Shullsburg	Lafayette	1,019	7	68.6	.....	95	28†	32	8	35	4.72	.....	2.54	0	7	18	6	6	sw.	Harrison B. Chamberlin.
Solon Springs	Douglas	1,083	7	63.6	.....	96	29	29	8	45	4.70	.....	2.50	0	6	17	6	7	sw.	John M. Sayles.
Spooner	Washburn	1,104	19	67.6	+ 3.1	96	29	31	8	39	2.04	− 1.43	1.00	0	7	23	6	1	.....	Horace A. Bresee.
Stanley	Chippewa	1,082	9	66.6	.....	92	28†	31	8†	35	3.30	.....	1.22	0	7	20	10	0	sw.	W. Humphrey Scott.
Stevens Point	Portage	1,113	20	69.1	+ 3.1	98	29	33	8†	42	8.31	+ 4.39	3.00	0	11	11	15	4	sw.	Postmaster.
Sugar Camp Dam	Oneida	1,582	3	.....	.....	.....	.....	.....	.....	.....	3.88	.....	1.03	0	7	22	8	0	sw.	Lyman Haskins.
Tomahawk	do	1,451	0	67.2	.....	94	28†	29	8	41	1.80	.....	0.60	0	4	24	4	2	s.	Victor Extrom.
Trout Lake	Vilas	1,400	1	64.6	.....	90	28†	30	8†	35	3.20	.....	0.85	0	6	14	14	2	sw.	F. B. Moody.
Twin Lakes Dam	do	1,625	3	.....	.....	.....	.....	.....	.....	.....	2.72	.....	0.96	0	5	24	6	0	sw.	Albert D. Hansen.
Valley Junction	Monroe	930	21	69.0	+ 3.4	98	28†	30	10	44	2.48	− 1.55	1.72	0	5	22	5	3	w.	J. J. Donahue.
Viroqua	Vernon	1,412	23	69.5	+ 3.3	95	16	36	8	30	3.72	− 0.36	1.56	0	6	16	9	5	sw.	Henry E. Rogers.
Vudesare	Vilas	1,700	5	63.6	.....	92	28†	26	9	49	3.81	.....	2.06	0	6	20	5	5	w.	Louis L. Thomas.
Watertown	Jefferson	824	22	68.0	+ 1.7	94	29	35	8	34	4.09	+ 0.46	1.28	0	8	22	8	0	sw.	Charles J. Salick.
Waukesha	Waukesha	864	22	68.4	+ 2.2	97	29	34	8†	38	5.21	+ 2.05	2.05	0	11	14	16	0	sw.	Carroll College.
Wausau	Marathon	1,212	18	66.2	+ 1.2	94	29	33	8	36	3.49	− 0.25	1.32	0	7	24	2	4	se.	A. A. Babcock, jr.
Weyerhaeuser	Rusk	1,297	11	64.4	+ 0.3	92	28†	28	8	42	3.32	.....	0.72	0	9	19	9	2	sw.	Miss Etta Stiles.
Whitehall	Trempealeau	675	22	67.7	+ 1.4	95	29†	33	9	40	2.80	− 0.99	1.60	0	5	.....	.....	.....	s.	Hans J. Haugh.

TABLE 1.—*Climatological data for June, 1913. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Iowa.																				
Albia	Monroe	959	15	72.6	+ 3.0	97	17	38	8†	35	4.48	− 0.38	2.53	0	6	21	6	3	e.	J. I. Chenoweth.
Algona	Kossuth	1,213	39	71.0	+ 2.5	97	28	40	8†	32	2.52	− 1.88	1.39	0	2	26	3	1	s.	Dr. F. T. Seeley.
Alta	Buena Vista	1,513	22	71.2	+ 3.6	95	15†	39	8	35	0.79	− 4.43	0.40	0	7	18	12	0	s.	David E. Hadden.
Amana	Iowa	721	37	72.0	+ 3.6	96	17†	38	9†	38	5.10	+ 0.69	2.80	0	7	18	10	2	s.	C. Schadt.
Ames	Story	926	37	71.8	+ 2.4	98	17	39	9	37	1.74	− 2.79	0.80	0	7	22	7	1	se.	Iowa State College.
Baxter	Jasper	998	13	70.5	+ 2.9	96	19	36	9	35	3.39	− 1.11	1.84	0	8	21	9	0	sw.	W. R. Vandike.
Belle Plaine	Benton	886	23	71.3	+ 2.2	95	17	39	9	33	5.05	+ 0.88	2.13	0	9	18	10	2	s.	O. C. Burrows.
Belmond	Wright	1,184	3	70.8	.....	96	15†	38	9	37	1.11	.....	0.31	0	7	10	18	2	s.	Geo. P. Hardwick.
Bloomfield	Davis	881	6	73.6	.....	99	18	39	8	38	4.68	.....	2.65	0	9	20	7	3	sw.	Albert Power.
Bonaparte	Van Buren	.....	22	72.2	+ 1.0	95	18†	38	8	35	3.96	− 0.72	1.79	0	9	.....	.....	.....	.....	B. R. Vale.
Boone	Boone	1,134	8	72.4	.....	100	17	38	9	38	1.60	.....	0.51	0	7	17	4	9	.....	C. F. Henning.
Britt	Hancock	1,236	16	70.0	+ 2.9	94	15†	38	9	33	2.12	− 1.96	0.77	0	7	23	5	2	s.	L. M. Goodman.
Burlington	Des Moines	544	17	73.2	+ 2.7	98	29	39	8	33	2.43	− 2.65	1.05	0	7	23	1	6	s.	Max. E. Poppe, jr.
Carroll	Carroll	1,265	23	70.7	+ 2.1	94	15†	39	10	32	2.28	− 2.39	0.85	0	5	22	5	3	sw.	Mrs. Jos. J. Wolfe.
Cedar Rapids	Linn	733	31	73.1	+ 2.8	100	20	41	8†	39	4.43	+ 0.56	1.74	0	6	17	4	9	s.	R. S. Toogood.
Charles City	Floyd	1,015	22	70.3	+ 1.5	96	15	39	9	35	2.21	− 2.89	1.30	0	6	9	12	9	sw.	U. S. Weather Bureau.
Clear Lake	Cerro Gordo	1,241	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Oscar Stevens.
Clinton	Clinton	593	46	73.2	+ 3.5	102	29	38	8	41	4.62	+ 0.19	1.95	0	8	20	6	4	sw.	A. E. Reid.
Columbus Junction	Louisa	595	12	72.9	+ 4.2	97	29	38	8	31	6.13	+ 1.25	2.15	0	7	21	6	3	sw.	J. B. Johnston.
Davenport	Scott	580	42	72.8	+ 1.9	97	29	39	8	28	6.09	+ 1.98	1.59	0	11	15	8	7	sw.	U. S. Weather Bureau.
Decorah	Winneshiek	875	20	.....	.....	.....	.....	35	9	.....	1.80	− 2.20	0.85	0	5	.....	.....	.....	.....	F. H. Baker.
Delaware	Delaware	1,083	22	69.8	+ 2.0	94	28†	37	8	32	2.41	− 1.77	0.53	0	9	17	13	0	sw.	Nettie E. Ball.
Des Moines	Polk	861	35	73.1	+ 2.7	96	16	44	8	29	3.52	− 1.44	2.02	0	8	13	11	6	sw.	U. S. Weather Bureau.
Dubuque	Dubuque	639	40	71.4	+ 1.8	96	28	40	8	31	1.92	− 2.63	0.70	0	8	12	14	4	s.	Do.
Earlham	Madison	.....	11	70.3	+ 5.1	94	15	35	10	36	2.78	− 1.75	0.87	0	9	19	6	5	sw.	George Phillips.
Elkader	Clayton	727	34	69.0	− 0.1	100	29	33	9	41	1.85	− 2.18	0.52	0	8	21	9	0	se.	Chas. Reinecke.
Elma	Howard	1,182	3	69.8	.....	96	28	34	8	36	1.86	.....	0.84	0	7	17	12	1	se.	H. A. Moore.
Estherville	Emmet	1,298	18	68.4	+ 1.6	95	15	37	9†	35	3.90	+ 0.55	1.90	0	6	.....	.....	.....	s.	A. O. Peterson.
Fairfield	Jefferson	780	29	72.6	+ 2.7	100	19	39	8	33	4.49	− 0.64	2.77	0	8	19	2	9	sw.	R. M. McKenzie.
Fayette	Fayette	1,003	23	69.2	+ 1.9	97	29	35	10	35	1.70	− 2.93	0.65	0	9	23	6	1	sw.	R. Z. Latimer.
Forest City	Winnebago	1,226	19	71.5	+ 4.3	100	28	40	8†	32	2.73	− 1.90	1.59	0	6	26	4	0	se.	J. A. Peters.
Fort Dodge	Webster	1,126	13	72.6	+ 6.0	99	28	40	9	35	1.78	− 2.03	0.90	0	6	20	3	7	sw.	J. F. Monk.
Fort Madison	Lee	516	64	.....	.....	.....	.....	.....	.....	.....	4.17	− 0.21	1.90	0	6	9	13	8	s.	Miss L. A. McCready.
Gilman	Marshall	1,052	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. L. Wylie.
Grand Meadow	Clayton	1,180	22	68.9	+ 2.5	92	28†	38	8†	28	2.45	− 2.35	0.80	0	7	10	19	1	sw.	F. L. Williams.
Grinnell	Poweshiek	1,023	21	72.0	+ 3.7	98	16	37	8	36	8.94	+ 4.36	5.25	0	7	20	8	2	sw.	D. W. Brainard.
Grundy Center	Grundy	976	22	72.2	+ 4.0	97	15†	36	10	37	2.24	− 3.06	0.74	0	7	20	10	0	s.	J. B. Calderwood.
Guthrie Center	Guthrie	1,077	18	72.1	+ 3.1	97	15†	37	10	39	3.24	− 1.17	1.11	0	7	22	6	2	sw.	D. G. Beardsley.
Hampton	Franklin	1,155	23	71.8	+ 4.0	97	17†	38	10	35	2.39	− 2.52	1.30	0	8	12	16	2	sw.	E. C. Grenelle.
Humboldt	Humboldt	1,095	25	70.9	+ 2.1	99	17	34	9	36	1.12	− 3.59	0.31	0	5	19	10	1	s.	J. P. Peterson.
Independence	Buchanan	921	49	70.4	+ 2.0	96	29	36	9	37	1.38	− 3.40	0.45	0	8	20	7	3	se.	R. E. Dudley.
Indianola	Warren	969	22	72.4	+ 2.7	94	15	41	8†	40	6.25	+ 2.07	2.17	0	10	16	8	6	sw.	Prof. J. L. Tilton.
Iowa City	Johnson	683	53	70.8	+ 1.5	96	17†	38	8	37	6.28	+ 1.70	1.80	0	11	18	9	3	sw.	Prof. A. G. Smith.
Iowa Falls	Hardin	1,170	20	69.7	+ 2.2	95	15†	37	9	37	1.66	− 2.86	0.64	0	8	22	3	5	sw.	J. B. Parmelee.
Jefferson	Greene	1,052	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ora M. Hall.
Keokuk	Lee	614	42	74.8	+ 2.3	98	18	40	8	32	4.15	− 0.20	1.98	0	8	20	7	3	sw.	U. S. Weather Bureau.
Keosauqua	Van Buren	644	21	72.4	+ 0.7	97	28†	39	8	41	4.07	− 0.48	2.75	0	8	.....	.....	.....	.....	J. H. Landes.
Knoxville	Marion	920	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Casey and Belville.
Lacona	Warren	.....	14	.....	.....	.....	.....	.....	.....	.....	8.95	+ 3.94	4.00	0	7	9	17	4	.....	J. B. Alter.
Lansing	Allamakee	632	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chas. R. Serene.
Le Claire	Scott	576	13	.....	.....	.....	.....	.....	.....	.....	4.54	+ 0.45	1.63	0	8	.....	.....	.....	.....	Miss M. T. Disney.
Marshalltown	Marshall	947	21	72.4	+ 3.7	99	17†	39	10	39	2.12	− 2.24	0.65	0	9	22	5	3	sw.	Jacob Bige.
Mason City	Cerro Gordo	1,132	16	71.0	+ 3.8	99	15	33	10	42	2.67	− 3.22	1.56	0	5	21	7	2	s.	Dr. Roy Desart.
Monroe	Jasper	922	1	71.2	.....	96	16†	39	8	32	4.97	.....	1.69	0	10	24	2	4	s.	J. A. Dibel.
Mount Pleasant	Henry	729	32	72.1	+ 0.7	95	28†	38	8	34	4.08	− 0.40	1.95	0	8	20	6	4	sw.	J. W. Edwards.
Muscatine	Muscatine	554	53	.....	.....	.....	.....	.....	.....	.....	7.31	+ 2.45	2.50	0	10	.....	.....	.....	.....	William Molis.
New Hampton	Chickasaw	1,169	16	70.9	+ 4.6	94	15†	40	8†	33	2.71	+ 1.54	1.24	0	4	23	5	2	s.	A. F. Kennan.
Nora Springs	Floyd	1,064	....	71.3	.....	100	28	40	9½	36	3.08	.....	2.16	0	6	22	7	1	s.	Arthur Betts.
Northwood	Worth	1,122	17	69.6	+ 3.6	97	15	38	9†	36	4.46	− 0.42	1.45	0	8	19	8	3	sw.	Chas. H. Dwelle.
Olin	Jones	760	15	71.8	+ 3.6	96	28†	37	8†	42	3.75	+ 0.01	1.90	0	8	16	14	0	sw.	Dr. F. W. Port.
Osage	Mitchell	1,184	26	70.4	+ 4.3	95	17†	38	10	37	2.92	− 1.61	1.32	0	5	19	10	1	s.	Lester Coonradt.
Oskaloosa	Mahaska	843	37	71.6	+ 2.1	95	16†	39	8	37	5.87	+ 1.76	2.42	0	10	18	5	7	sw.	Joseph Boyd.
Ottumwa	Wapello	649	18	.....	.....	.....	.....	.....	.....	.....	0.90	− 3.18	0.40	0	4	20	3	7	w.	Chester Potter.
Pella	Marion	877	11	71.6	+ 0.3	97	15	40	8†	38	4.42	+ 0.64	1.65	0	7	28	0	2	s.	J. H. Ver Steeg.
Perry	Dallas	975	12	71.6	+ 1.3	97	15	38	10	39	1.67	− 3.02	0.71	0	7	21	9	0	se.	S. J. Brumfield.
Pocahontas	Pocahontas	1,248	9	70.0	.....	95	17†	38	10	35	0.99	.....	0.41	0	5	24	5	1	sw.	F. E. Hronek.
Rockwell City	Calhoun	.....	17	71.7	+ 3.2	96	18†	40	9†	36	2.70	− 1.56	1.10	0	4	.....	.....	.....	.....	C. M. Randall.
Sac City	Sac	1,278	37	72.3[4]	+ 4.1	94	28	.....	.....	.....	1.30	− 3.56	0.50	0	7	19	10	1	sw.	E. N. Bailey.
Saint Charles	Madison	1,070	12	71.6	+ 3.0	95	15†	40	8†	35	7.79	+ 3.45	3.00	0	9	20	9	1	s.	R. D. Minard.
Sigourney	Keokuk	877	17	72.0	+ 1.2	95	15†	38	8	35	6.53	+ 2.55	3.55	0	6	12	16	2	s.	J. T. Parker.
Stockport	Van Buren	745	11	71.8	.....	95	18†	38	8	37	4.02	− 2.34	2.43	0	7	20	4	6	s.	C. L. Beswick.
Storm Lake	Buena Vista	1,440	24	72.0	+ 5.0	96	15	41	8	33	1.15	− 3.64	0.47	0	6	24	5	1	s.	Chauncy Case.
Tipton	Cedar	807	14	73.8	+ 3.9	97	28†	42	8	29	5.48	+ 1.54	2.99	0	6	18	12	0	s.	F. K. Gregg.
Toledo	Tama	856	19	71.0	+ 1.8	96	28	36	9	37	2.90	− 0.63	1.50	0	8	25	5	0	sw.	I. F. Giger.
Washington	Washington	769	31	72.8	+ 1.1	96	16†	38	8	35	6.09	+ 2.58	2.57	0	7	16	11	3	sw.	Wm. A. Cook.
Waterloo	Black Hawk	862	30	71.0	+ 2.8	96	28	39	10	34	1.61	− 2.25	0.60	0	6	23	1	6	se.	Ralph B. Slippy.
Waukee	Dallas	1,039	10	70.5	+ 1.0	93	15†	38	9	31	3.04	− 1.71	2.03	0	9	26	4	0	sw.	Samuel F. Fort.
Waverly	Bremer	948	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Earl C. Moore.
Webster City	Hamilton	.....	8	71.9	.....	100	17†	38	8†	42	1.71	.....	0.42	0	7	11	18	1	se.	C. D. Carpenter.
West Bend	Palo Alto	1,197	20	71.4	+ 4.0	98	16	38	9†	40	1.76	− 2.46	1.59	0	4	21	2	7	s.	Phil Dorweiler.
Whitten	Hardin	1,036	16	70.8	+ 2.9	96	28	38	9	33	3.19	− 1.14	0.97	0	7	19	9	2	se.	Dr. F. P. Butler.
Winterset	Madison	1,129	22	72.4	+ 2.3	97	15	40	8†	32	3.57	− 2.26	1.22	0	8	19	4	7	s.	Dr. R. S. Cooper.
Missouri.																				
Gorin	Scotland	700	28	.....	.....	.....	.....	.....	.....	.....	4.37	+ 0.74	2.22	0	6	18	4	8	sw.	J. W. Pulliam.
Hannibal	Marion	534	22	75.2	+ 1.9	99	18	43	11	41	2.31	− 1.21	1.78	0	6	19	8	3	sw.	U. S. Weather Bureau.
Louisiana	Pike	500	36	73.4	+ 1.9	98	18†	34	11	49	5.00	+ 0.81	1.85	T.	8	22	7	1	se.	J. T. Farrel.
Macon	Macon	881	1	76.1	.....	100	18	43	8†	36	3.33	.....	1.36	0	7	18	9	3	sw.	John A. Cook.
Mexico	Audrain	797	36	77.5	+ 4.2	104	29	41	11	44	0.79	− 4.55	0.28	0	5	20	1	9	sw.	J. F. Llewellyn.
Palmyra	Marion	652	2	76.0	.....	102	18	40	11	38	5.45	.....	1.83	0	7	12	13	5	sw.	W. B. Markell.
Steffenville	Lewis	576	20	76.8	+ 4.6	107	18	40	9	45	2.45	− 1.44	1.45	0	4	17	10	3	s.	Frank Hall.
Sublett	Adair	1,000	33	73.5	+ 1.7	98	15†	40	8†	39	3.65	1.08	1.20	0	5	15	10	5	sw.	Lewis Spriggs.
Vandalia	Audrain	776	3	77.8	.....	104	29	43	9	37	1.26	.....	0.63	0	3	17	6	7	s.	C. B. Ellis.
Warrenton	Warren	865	24	77.6	+ 4.3	103	17	43	9†	37	2.08	− 2.45	0.98	0	5	16	7	7	s.	Prof. J. H. Frick.

TABLE 1.—*Climatological data for June, 1913. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Indiana.																				
Collegeville	Jasper	.....	14	73.2	+ 4.9	104	28†	37	9	45	2.47	− 1.18	0.89	0	5	16	8	6	sw.	Otto Miller.
Knox	Starke	716	8	70.5	.....	95	16†	38	9†	33	1.73	.....	1.09	0	4	23	5	2	sw.	W. R. R. Tatman.
Laporte	Laporte	810	17	69.3	+ 0.8	98	14†	35	9	47	1.24	− 2.06	0.65	0	5	22	7	1	sw.	Wm. M. Walton, jr.
Plymouth	Marshall	790	10	69.0	.....	94	29	36	9†	34	1.99	.....	0.75	0	7	22	6	2	sw.	J. W. Siders.
South Bend	St. Joseph	726	20	71.5	+ 2.9	97	29	40	9†	33	0.79	− 2.39	0.58	0	5	20	8	2	sw.	Henry H. Swaim.
Illinois.																				
Aledo	Mercer	738	13	72.3	+ 2.7	96	28†	38	8	34	5.61	+ 2.10	2.27	0	8	7	19	4	s.	William B. Frew.
Alexander	Morgan	670	20	75.0	+ 2.8	100	17†	39	9	42	3.49	− 0.11	1.29	0	8	15	11	4	sw.	George H. Hall.
Antioch	Lake	861	12	69.4	+ 2.9	100	29	35	10	43	2.07	− 0.92	0.52	0	7	12	14	4	sw.	J. C. James.
Astoria	Fulton	650	14	72.2	+ 2.9	95	16†	39	8	37	3.66	− 0.26	1.60	0	7	18	5	7	s.	Edward V. Bohl.
Aurora	Kane	678	34	69.9	+ 1.1	98	29	37	9	40	1.05	− 2.59	0.75	0	3	27	1	2	ne.	Alice M. Holden.
Beardstown	Cass	448	.....	.....	.....	.....	.....	.....	.....	.....	2.38	− 0.84	1.25	0	7	.....	.....	.....	.....	Mrs. L. M. Rice.
Bement	Piatt	700	6	74.0d	.....	101c	29	36e	9	46e	1.50	.....	0.64	0	5	24	2	4	s.	N. N. Stevenson.
Bloomington	McLean	840	22	73.6	+ 1.7	99	16†	37	9	41	4.55	+ 0.84	2.18	0	6	22	3	5	ne.	Prof. H. N. Pearce.
Cairo	Alexander	359	41	78.3	+ 3.1	102	18	52	10	31	1.07	− 3.24	0.49	0	6	13	11	6	s.	U. S. Weather Bureau.
Camp Point	Adams	732	0	.....	.....	.....	.....	.....	.....	.....	4.14	.....	1.30	0	8	12	14	4	sw.	Capt. D. M. Morris.
Carbondale	Jackson	412	8	76.8	+ 3.0	102	18†	40	11	42	2.62	− 1.51	1.22	0	8	20	8	2	sw.	State Normal University.
Carlinville	Macoupin	663	23	76.4	+ 3.3	106	19	41	10†	47	1.01	− 3.04	0.57	0	3	22	5	3	sw.	Dr. J. D. Conley.
Carlyle	Clinton	470	28	.....	.....	.....	.....	.....	.....	.....	3.27	− 1.24	1.60	0	4	.....	.....	.....	.....	Harvey O. Jones.
Chester	Randolph	380	21	.....	.....	.....	.....	.....	.....	.....	2.80	− 1.26	1.78	0	9	.....	.....	.....	.....	Charles S. Gollon.
Clinton	De Witt	727	3	74.2	.....	100	29	38	8	37	1.92	.....	0.95	0	6	21	4	5	.....	J. Frank Ziegler.
Cobden	Union	656	30	78.1	+ 3.3	103	29	46a	10	36	0.90	− 3.91	0.25	0	5	18	8	4	sw.	John Buck.
Dakota	Stephenson	929	8	70.1	.....	100	28†	34	8	36	2.48	.....	0.66	0	8	20	9	1	sw.	Elmer G. Smith.
Decatur	Macon	685	22	75.2	+ 3.2	102	17†	40	9	46	2.90	− 0.63	1.23	0	6	25	1	4	sw.	Prof. J. H. Coonradt.
Dixon	Lee	725	23	70.6	+ 1.0	98	16†	39	8	40	3.15	− 0.22	1.45	0	7	19	5	6	.....	H. U. Bardwell.
Du Quoin	Perry	459	25	77.1	+ 2.0	103a	29	42	11	42a	1.72	− 1.87	0.76	0	5	.....	.....	.....	sw.	G. H. Knetzger.
Dwight	Livingston	600	20	71.9	+ 2.0	99	16†	36	9	40	2.40	− 1.31	0.99	0	9	16	7	7	sw.	Edward O. Welch.
East St. Louis	St. Clair	481	2	.....	.....	.....	.....	.....	.....	.....	1.64	.....	0.89	0	4	.....	.....	.....	.....	W. Mc. K. Brown.
Edwardsville	Madison	554	14	.....	.....	.....	.....	.....	.....	.....	4.86	+ 0.17	2.82	0	5	.....	.....	.....	.....	W. H. Morgan.
Elgin	Kane	716	6	70.8	.....	98	29	36	9	38	1.53	.....	1.05	0	4	17	11	2	sw.	Elgin Observatory.
Ewing	Franklin	449	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	.....	.....	.....	.....	.....	Ewing College.
Fairview	Fulton	733	2	.....	.....	.....	.....	.....	.....	.....	2.12	.....	0.71	0	8	.....	.....	.....	.....	Abram Wilson.
Galva	Henry	842	21	71.4	+ 1.2	98	29	36	8	38	6.18	+ 2.30	1.41	0	10	23	2	5	s.	Prof. F. V. White.
Grafton	Jersey	422	20	.....	.....	.....	.....	.....	.....	.....	3.04	− 0.73	1.74	0	4	.....	.....	.....	.....	R. C. Goodrich.
Greenville	Bond	635	35	77.1	+ 3.6	103	17†	42	10	41	5.37	+ 0.52	2.02	0	8	26	1	3	s.	H. W. Reidemann.
Griggsville	Pike	650	28	76.0b	+ 3.3	98a	18†	41b	8	31b	4.54	+ 0.42	1.88	0	9	19	8	3	s.	George F. Kneeland.
Havana	Mason	475	21	74.6	+ 0.9	101	29	41	8†	39	3.15	− 0.59	1.30	0	7	21	4	5	s.	L. L. Eutenener.
Henry	Marshall	500	25	72.0	+ 1.6	97	29	39	8	37	3.74	− 0.34	1.32	0	6	21	4	5	se.	Dr. F. A. Powell.
Hillsboro	Montgomery	675	19	76.8	+ 3.8	103	17	43	9	40	3.18	− 0.67	2.65	0	5	20	3	7	s.	Ira L. Woodward.
Joliet	Will	609	22	69.4	+ 0.3	100	29	36	9	43	1.74	− 1.49	1.00	0	5	23	4	3	sw.	F. M. Muhlig.
Kishwaukee	Winnebago	730	25	69.4	+ 0.9	98	28	34	8	38	2.77	− 1.30	1.04	0	8	18	10	2	sw.	George Stevens.
La Grange	Cook	657	21	70.2	+ 2.0	98	30	36	9	39	0.89	− 2.84	0.64	0	3	20	8	2	sw.	Prof. F. E. Sanford.
La Harpe	Hancock	698	34	71.8	+ 0.4	96	28†	38	8†	38	3.54	− 0.67	1.24	0	6	24	3	3	sw.	George E. Campbell.
Lanark	Carroll	883	24	69.1	+ 1.2	98	29	33	8	42	1.62	− 2.30	0.60	0	8	24	3	3	sw.	M. N. Wertz.
La Salle	La Salle	536	8	71.7	+ 1.6	99	29	39	8	37	3.32	− 0.67	1.57	0	8	15	6	9	sw.	U. S. Weather Bureau.
Lincoln	Logan	575	25	73.5	+ 1.9	100	18†	35	11	50	2.31	− 1.21	1.81	0	5	21	6	3	sw.	Prof. C. S. Oglevee.
Macomb	McDonough	700	9	.....	.....	.....	.....	.....	.....	.....	3.08	.....	1.23	0	7	.....	.....	.....	.....	State Normal University.
Manteno	Kankakee	711	2	.....	.....	.....	.....	.....	.....	.....	2.05	.....	0.96	0	4	23	3	4	sw.	J. F. Schmeltzer.
Martinton	Iroquois	633	26	72.8	+ 2.8	103	29	38	9†	45	1.87	− 2.65	0.72	0	5	22	5	3	sw.	Joseph H. Peltier.
Mascoutah	St. Clair	425	23	77.2	+ 3.0	100	19†	44	10	40	1.92	− 2.52	0.95	0	4	18	12	0	s.	Dr. Robert F. Lischer.
Minonk	Woodford	745	20	72.3	+ 1.8	100	28†	36	9	39	2.00	− 1.17	0.94	0	7	20	5	5	sw.	John C. Danforth.
Monmouth	Warren	784	21	72.7	+ 1.8	99	29	36	8	37	2.49	− 0.99	0.80	0	8	18	3	9	s.	Dr. J. C. Hutchison.
Morris	Grundy	518	2	70.9	.....	101	28	35	9	39	1.62	.....	0.87	0	6	22	6	2	se.	E. G. Cryder.
Morrison	Whiteside	685	19	70.9	+ 2.1	100	28†	37	8†	42	4.17	+ 0.55	1.92	0	8	23	1	6	sw.	S. A. Maxwell.
Morrisonville	Christian	621	14	74.4	+ 3.4	100	17	41	9†	42	1.97	− 1.60	0.95	0	5	18	8	4	sw.	J. D. Lowis.
Mount Vernon	Jefferson	511	19	76.0	+ 1.9	102	21	46	11†	40	4.57	+ 0.41	3.80	0	4	20	7	3	s.	Theodore P. Stelle.
Nashville	Washington	503	13	.....	.....	.....	.....	.....	.....	.....	1.86	− 1.93	1.64	.....	3	.....	.....	.....	.....	H. M. Potter.
Oregon	Ogle	702	4	70.6a	.....	100	28†	35b	8†	36b	2.16	.....	0.85	0	7	17	10	3	s.	Samuel Ray.
Ottawa	La Salle	500	27	72.8	+ 1.9	102	29	38	9	39	2.36	− 1.11	1.39	0	7	20	0	10	sw.	Miss Maude M. Harris.
Pana	Christian	692	27	75.2	+ 3.3	100	17†	42	9	35	1.94	− 2.07	0.70	0	6	20	8	2	.....	Dr. G. N. Gilbert.
Paw Paw	Lee	930	1	.....	.....	.....	.....	.....	.....	.....	2.04	.....	0.97	0	7	.....	.....	.....	.....	A. C. McBride.
Peoria	Peoria	609	57	73.2	+ 2.3	99	29	40	8	37	2.50	− 1.80	0.93	0	8	18	4	8	s.	U. S. Weather Bureau.
Pontiac	Livingston	546	11	73.5	+ 2.8	101	28†	38	8	42	2.30	+ 0.07	0.67	0	8	17	4	9	sw.	George Butterworth.
Quincy	Adams	481	7	76.7	.....	100	19†	40	8	34	5.86	.....	5.04	0	6	.....	.....	.....	.....	Fred J. Brinkoetter.
Riley	McHenry	956	54	69.4	+ 2.2	98	29	36	8	32	2.04	− 1.92	1.23	0	8	15	12	3	sw.	John West James.
Roberts	Ford	774	2	.....	.....	.....	.....	.....	.....	.....	2.49	.....	0.91	0	8	22	3	5	sw.	R. E. Bradbury.
Rockford	Winnebago	763	21	70.0	+ 0.8	100	29	36	8†	36	1.59	− 2.44	0.61	0	7	19	8	3	.....	Dr. John R. Porter.
Rushville	Schuyler	670	22	74.5	+ 2.3	96	17†	40	8	35	1.95	− 1.45	0.72	0	6	24	3	3	s.	H. F. Dyson.
St. Charles	Kane	700	18	70.5	+ 1.5	100	28	36	9	42	1.45	− 1.73	0.80	0	5	17	12	1	.....	Dr. William H. Bishop.
St. Peter	Fayette	500	11	76.6	+ 3.9	102	16†	43	9†	46	2.40	− 1.43	1.50	0	5	15	14	1	nw.	M. L. Hansford.
Sparta	Randolph	538	27	77.2	+ 3.3	101	17†	43	10	39	2.76	− 0.72	2.60	0	7	20	8	2	se.	James A. Caldwell.
Springfield	Sangamon	644	33	76.2	+ 3.9	100	29	41	8	34	1.84	− 2.47	1.60	0	5	15	9	6	sw.	U. S. Weather Bureau.
Streator	La Salle	626	20	72.4	+ 1.6	101	29	39	8†	42	1.87	− 1.36	0.87	0	10	24	1	5	sw.	Miss Lora Sweetser.
Sullivan	Moultrie	530	13	76.3	+ 4.7	103	17	42	8†	42	2.13	− 1.56	0.48	0	7	22	7	1	sw.	C. A. Corbin.
Sycamore	De Kalb	855	33	70.6	+ 2.5	102	29	35	8†	47	1.94	− 2.07	0.96	0	4	20	1	9	w.	George E. Valentine.
Tiskilwa	Bureau	798	29	.....	.....	.....	.....	.....	.....	.....	5.12	+ 1.52	2.35	0	7	.....	.....	.....	.....	F. I. Smucker.
Walnut	do.	717	22	73.1b	+ 1.9	100b	29	37a	9	37c	3.27	− 0.41	1.39	0	8	20	8	2	se.	O. C. Nussle.
Warsaw	Hancock	501	15	.....	.....	.....	.....	.....	.....	.....	4.92	+ 0.60	1.49	0	7	.....	.....	.....	.....	W. R. Kirkbride.
Waterloo	Monroe	719	2	.....	.....	.....	.....	.....	.....	.....	2.70	.....	1.22	0	3	.....	.....	.....	.....	Prof. J. E. Raibourn.
White Hall	Greene	573	5	76.0	.....	103	29	42	9†	45	1.08	− 2.34	0.78	0	3	25	1	4	sw.	Frank Dillman.
Windsor	Shelby	681	14	75.8	+ 4.3	104	17	37	11	50	2.18	− 1.45	0.65	0	7	11	13	6	sw.	Herbert Rose.
Winnebago	Winnebago	900	26	70.2	+ 1.8	100	28†	34	8	38	3.20	− 0.74	0.95	0	7	23	5	2	sw.	Frank Osborn.
Yorkville	Kendall	584	26	70.2	+ 1.7	101	29	34	9	44	1.31	− 2.53	0.99	0	5	22	4	4	w.	Herman A. Grimwood.

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for June, 1913. District No. 5, Upper Mississippi Valley.*

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
North Dakota.																																
Amenia	Red	.05	T.		T.	.40									T.				.42	.44						.26		2.10			.29	3.96
Bottineau	Mouse		.24			.21									.25	T.		.05		.15				.48	.04	T.	.02	.34	.03	T.	.01	1.82
Bowbells	do		.10			.65										.27		.07		.20					.03	.22		.10	.75	.61	.05	3.05
Cando	Sheyenne				.02							.04	.02			.07		.63	.10						.50		1.00					2.38
Crosby	Mouse		.12										.31		.05			1.30	.10		T.			.04			T.	.44	.49	.31	.17	3.33
Devils Lake	Sheyenne	T.	.26			.01								T.		.02		.35	T.	.14			.01		.25	.01	.03	.04		.16		1.28
Donnybrook	Mouse														.13			.10	.14					.31	.07		.13		.08	.06		1.02
Dunseith	do		.15												.03				.05				.67				.10	.18	.01			1.23
Eckman (near)	do		.10												T.			.50	.75					.75			34		.09			2.53
Fessenden	James	.35	T.		.02										.09	.14	.01	.34	.33	.09				T.		.45		.08			T.	1.90
Forman	Sheyenne		.06		.12	.25									T.		.28	.24		.25						.66		.90		.45	.15	3.36
Grafton	Red	.11		.03		.03										T.			.08	.05				.20				.29			.83	1.62
Granville	Mouse																															
Hannah	Pembina																															
Hansboro	Red	.25																	.10				.04			.05	.22	.16				0.82
Hillsboro	do		.06		T.	1.20											T.	.28		.55						.12		.22		.07		2.50
Lakota	Sheyenne		.20			.18												.25	.03	.27					T.	1.10	.06	.12		.12		2.35
Langdon	Pembina	.30	.26																.14	.31				.51		.51	.11	.42	T.			2.63
Larimore	Red	.30	.07			.13	.03												.40	.60						.15	.04	.06			.07	2.30
Lisbon	Sheyenne	1.12	.25		.13	.21									.07	.03			.54	.16	.03					1.30		1.15			.52	5.31
McKinney	Mouse					.65													.10						26		T.		.40	.24	.30	1.65
McLeod	Sheyenne	T.	.10		.10	.23								T.	T.		.14	.42		.10					1.15	.25				.36		2.85
Manfred	do		.09											.79	.02	.20		.80		.18							.15		.07			2.30
Mayville	Red		.09			.60							.05					.43		.10						.18		.25				1.70
Milnor	do				.22	.34									T.	T.	.09	.28		.06					1.18	.48		.89		.47		4.01
Minot	Mouse		.06												.07	.18		.03	.05	.14					.08			.50	.03	T.		1.14
Minto	Red					.12												.08	.08						.08					.45		0.81
Oriska	Sheyenne		.07	.06		.78								.05	T.	.02	.15	.33	.02	.06					T.	.12		.53		.08	T.	2.27
Park River	Red					.07										T.		.10	.27	T.					.40	.05		.07		.15		1.11
Pembina	do	.42	.10			T.													T.	.36				.02	.03	.32	.01	.08	T.		.40	1.74
Power	Sheyenne	.13		.10	.40													.62		T.					2.95		2.10			.65		6.95
Towner	Mouse				.08											.05		.23	.20	T.				.20	.03	T.	.08	.30	T.			1.17
University	Red		.04			.12									.14			.25		.24					.01	.01	.04	.10	.10	.16		1.21
Wahpeton	do				.35													.17	.31	.36						1.07		.65			1.45	4.36
Walhalla	Pembina																.50									.40	.05	.47	.20	.20		1.82
Westhope	Mouse		.22			.56								.07					.12	.08					.14			.10	.86		.14	2.30
Willow City	do		.14			.08								T.			T.	.07				.80	.05	.04	T.	.19	.22	.02				1.61
Minnesota.																																
Albert Lea	Mississippi		.05		T.												T.				1.50				2.80	.35	.74					5.44
Alexandria	do	.22			.03	T.									.05	.30		T.	.08	.08	.16					1.12	T.				.42	2.46
Angus	Red	.05	.02			.25									T.			.13	.14	.60							.03	.34	.04	.15		1.75
Bagley	do																.13		1.37								.55		.93		2.98
Baudette	Rainy	.53	.65			.65	.66											T.	.03							.17		.35		.18		3.22
Beardsley	Minnesota	.05	.12		.05	.10									T.	.04	.06			.57						.06	T.	.04			.97	2.06
Bemidji	Mississippi						.62							.02			.04	.09		.62						.05		.65			.31	2.40
Bird Island	Minnesota	.05	.04		.04										.41			T.		1.22	.06				1.26	2.00	.53				.25	5.86
Brainerd	Mississippi					.40									.12			.21	.38	.11					1.16	.53	.32	.05			.23	3.51
Caledonia	do					T.	.83	T.										T.			.55	.60				.83	.08					2.89
Campbell	Red	.65			.08	.15	.06								T.	.04		.20	.20	.42	.08					1.62	.22	.12			1.32	5.16
Cass Lake	Mississippi																															
Collegeville	do	.08			.04	.80	.16								.21			.24		.70						.67		.12	.02			.30	3.34
Crookston	Red	.25	.02	T.		.27	.03								T.				.25	.80	T.								.15		.07	1.84
Detroit	do	.10	T.			.50	.10								T.	.10		.15	.25	.07	T.					.05			1.80		2.20	5.32
Ely	Rainy																															
Fairmont (near)	Minnesota		.16				.05														1.67	.10			2.15		1.05				.05	5.23
Faribault	Mississippi																				30					1.40	1.30					3.00
Farmington	do		T.		T.										.10			T.		1.58	.12				.67	.35	2.08					4.90
Fergus Falls	do		.04		.06	.13									.02		.10	.29		.32					.15	.20	.44	.54		.46	.64	3.39
Fort Ripley	Mississippi	.06													T.	.50			.19	.55	T.					1.75	.06				.47	3.58
Fosston	Red	.11	.02			.04												.15		1.26								1.41	.25	.64	.14	4.02
Glencoe	Mississippi																															
Grand Meadow	do		T.			.03	.20							.05				T.	T.		1.04					.26	.27	1.10					2.95
Gull Lake Dam	do	.09		.04		.10									.18		.02	.41	T.	.17					.38	1.28	.37	.04			.22	3.30
Hallock	Red		.12			.12													.20					.70			.05	.40	.10	.25		1.94
Halstad	do	.15	.07			.96													.18	.18						.12		.30			.43	2.39
Hinckley	St. Croix						.03											.30	.05	.50					.70	.20	.40			.07		2.25
International Falls	Rainy		.68			.46	1.04												.15	.04											.60	3.17
Itasca State Park	Mississippi					1.05									.01		.11	.19	2.08							.10		.20		.14	.57	4.45
Lake Crystal	Minnesota		.02																		.80				1.10	.16	.25					2.33
Leech Lake Dam	Mississippi		.07			.51									.14			.16		.87						.36	.07	.49			.35	3.02
Little Falls	do																															
Littlefork	Rainy	.31	.45			.25	.50												.05	.20						.04		.30			.41	2.51
Long Prairie	Mississippi														.25			.35		.29					.58	.45				.25		2.17
Lynd	Minnesota	.19	.06											T.							.80					T.		1.40				.20	2.65
Mankato	do																				1.10					.67	1.13				.01	2.91
Milaca	Mississippi					.45											.20							.94				.25			.20	2.04
Milan	Minnesota		.08	T.										T.	.05	T.				.52	.01				T.	T.	.07				.15	0.88
Minneapolis	Mississippi		T.		.03									T.	.37			.25	T.	.27					.40	.03	.80				T.	2.21
Montevideo	Minnesota	.18		.11	T.										.04	T.					1.09					.22					.32	1.96
Moorhead	Red		.05		.02	.16									T.		.19	.31		.28						.89		.80	.01	.36		3.07
Mora	St. Croix			.04			.10								.39			.16		.25						.08	.18	.16	.43			.03	1.82
Morris	Minnesota				.10	T.									.10			.02		.60							.01	.03			.33		1.19
New London	Mississippi																	.02		.16						.98	.17	.22	T.			.07	1.62
New Richland	Minnesota		T.												.11			T.			1.39				2.24	.59	.76					5.09
New Ulm	do	.05		.03											.08						.90					1.85	1.51				.05	4.47
Osakis	Mississippi	.13	T.	.05		T.									.48			.18		.36					.20	.37	.02				.30	2.09
Park Rapids	do	.06		.03		.15	.06								.03	.15			.27	.90	.10					.07		.85	.02		.48	3.17
Pierz	do														.70						.40				1.30							2.40
Pine River Dam	do		T.			.84									.30			.38		.40					1.00	.30	.56	.45			.20	4.43
Pokegama Falls	do	.05	.02			1.35									.01		T.	.05		.99						.44	.14	.32			.11	3.48
Red Lake	Red		.60												.23		T.	T.			.70						1.30			.30	.40	3.53
Red Lake Falls	do																															
Red Wing	Mississippi	.02		.02		T.											10			.06	1.00	.10				.54	1.00					2.84
Redwood Falls	Minnesota																															
Reeds Landing	Mississippi																															
Rochester	do																				.40	.33				.90	.60					2.23
Roseau	Red		.30			.30	.02												.17	.07		1.70		.11	4.18	.06	.87	.25	.18	.12		6.75
																																1.58

TABLE 2.—*Daily precipitation for June, 1913. District No. 5*—Continued.

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Minnesota—Contd.																																
St. Charles	Mississippi						.04								T.						1.00				.10	.60		.75				2.05
St. Cloud	do	.01		.09	.03		.49								.04			.14		.56					1.43		.15	.02			.09	3.05
St. Paul	Mississippi		T.		.02									T.	.16			.75		.24	T.				.50	.01	1.37				T.	3.05
St. Peter	Minnesota																				.90				.30	1.00	1.00					3.20
Sandy Lake Dam	Mississippi		T.			1.37									.07			.15		.31						.42	.18	1.23			.26	3.99
State Sanatorium	do		T.	T.		1.05									.23			.10		1.70						.15	.15	.87			.47	4.72
Stillwater ‖	St. Croix															.74			.14		.13					.60	.74				T.	2.35
Taylors Falls	do					.15									.10			.14		.05					.32		1.60	.10			T.	2.46
Thief River Falls ‖	do																	.15		.10	.85				.11		.71				.31	2.28
Tracy	Minnesota	.10	T.												.10					.47						.04		.10	.05	.07		0.88
Warren	Red					.15												.08		.05									.50			0.78
Warroad	Rainy		.27			.32	.42													.24				.08		T.		.10	.21	.34		1.98
Winnebago ‖	Minnesota	.01		.04		T.									.01		T.				2.02	.16			3.23	.70					T.	6.17
Winnibigoshish	Mississippi	.35				.95									.35		T.	.02		.75						.30		.28		.65		3.65
Winona	do	T.					.19									.05					.75				1.11	.95	.44					3.49
Worthington ‖	Des Moines	.17		.20																	2.12					.09	1.27				.12	3.97
Zumbrota	Mississippi														T.						2.25				.20	.74	1.20					4.39
South Dakota.																																
Milbank	Minnesota	.20		.16											T.	.01			T.							T.	.02				.50	0.89
Sisseton	do	.60			.25														.10	.05	.28					.27					.90	2.45
Wisconsin.																																
Antigo ‖	Wisconsin							.35								.69					.79					.40	.54					2.77
Barron	Chippewa	T.			T.		.73								.81			.24		.25						.35	.57					2.95
Beloit	Rock					.51	.09	.08							.17			.14			.04	.27				.20					.35	1.85
Big St. Germain Dam	Wisconsin	.05		T.			.54								.45				T.	.64						.21	.61	.10		T.		2.60
Brodhead	Rock					.37	.25	.20								.41		.34			.10	.10									T.	1.77
Burnett	do					.20	.14								.15	.75	1.42		.08		1.37	T.				T.					.60	4.71
Cornell	Chippewa														.04	.05		.16	.04	.43	.04				.13	.24	1.16	.08				2.37
Cottage Grove	Rock					.34	.03								.02	.58	T.	1.58			.89				T.	.05					.20	3.69
Darlington	do						.20	T.								.85					T.	.10				T.					.40	1.55
Deerskin Dam	Wisconsin	.33					.71								.68					.70						.15	.48	.15				3.20
Delavan	Rock					.20	.25								.70	.04	.13				.12	.04				.12					.46	2.06
Dodgeville	do																															
Downing	Chippewa				T.										.04			.20			.10				T.	1.10	1.40					2.84
Eau Claire	do				T.										T.			.24		.16	.52				.30	.43	.62					2.27
Glen Flora	do														1.77			.17	.18	.16							T.					2.28
Grand Rapids ‖	Wisconsin	.05					.06	.24	T.							.36	.07		.10	.02	.62	.62				.42	.26	.08					2.90
Grantsburg	St. Croix														.10			.20		.40						.20		.10				1.00
Hancock	Wisconsin					.05	.65								.45		.05		.10		1.02					.10	.18					.42	3.02
Hatfield	Black						.27									.26			.03	.63	1.37				.57	.16						3.29
Hayward	St. Croix																															
Hillsboro	Wisconsin				T.	.05	.50								.15	.85					1.81				.40						.26	4.02
Koepenick	do					.30									.20	.10				.50	.20					.30	1.70					3.30
La Crosse	Mississippi				T.	.03	.60								T.	T.		T.		.07	1.42				.48	.13	.17					2.90
Lake Mills	Rock					.38	.10								T.	.62	.70			.28	1.16					.04					.06	3.34
Lancaster	Mississippi					.80	.11								.17	1.29					.17				.20						.18	2.92
Long Lake	Wisconsin	.06					.84								.02	.51			.05	1.51	.16					.05	.40	.04					3.64
Madison	Rock	T.				.31	.28								.75	T.	1.59				.72				T.	.01	T.					.07	3.73
Marshfield	Wisconsin	T.				T.	T.								.18	.09		.08	.05	.45	1.12					.29	.44						2.70
Mather ‖	do					T.	.07	.22								.25	.12		T.		.21	.47				.10	.59						2.03
Mauston	do						.42								.41	.15					1.85					.45							3.28
Meadow Valley	do				T.	.06	.25								.15	.61	.07				.90					.04	.44						2.52
Medford ‖	Black															.10			.68		.38				.16		.35	.40				2.07
Merrill ‖	Wisconsin																.08		T.	.10	1.66					.31	.76					2.91
Minocqua	do	.08		.03			.97								.62					.80						.33	.88	.03					3.74
Mondovi	Mississippi					.01																				.10	.51						2.70
Mount Horeb	Rock					.55	.36									1.12			.10	.65	.85	.01			.47	.08					.30	3.09
Muscoda ‖	Wisconsin					T.	.68	.30								2.53					.68					T.	T.						5.44
Neillsville	Black															.35					.95					.70						2.00
New Richmond	St. Croix		T.		.03										2.10			.75	T.						.27	.74	1.30				T.	5.19
Osceola	St. Croix					T.									38			.05	T.	T.					.13		.80				T.	1.36
Park Falls ‖	Chippewa			.08		.01	1.91									.63			.03	.08	.32					.53	.22	.02	.10			T.	3.93
Portage ‖	Wisconsin					T.	.15	.18								.74	.12	T.			.02	1.24			T.	.05							2.50
Port Edwards	do	T.				.10	.36								.22	.22			.10	.45	.45					.37	.28					.06	2.61
Prairie du Chien ‖	Mississippi						.28	.38								1.05						.42				.32							2.45
Prairie du Sac	Wisconsin					.23	.43	.02							.07	1.2	.03				1.86					.06						.24	4.15
Prentice ‖	Chippewa	.15					.37								T.	.54			.04	.05	.12					.75	.68						2.70
Rest Lake	do					T.	2.15								.56					.56						.25	.35	.26					4.13
Rhinelander	Wisconsin		.08				1.40								1.00					.18	.45					.22	.33						3.66
Shullsburg	Mississippi					.12	2.54									.35					.11	.31				.23						1.06	4.72
Solon Springs	St. Croix	T.				2.50	.15								.70			T.		.25							20	.90					4.70
Spooner	do			T.			T.								.10			.19	1.00	.21						.07	.38	.09					2.04
Stanley	Chippewa														T.	.10		.29		.23	.82				.02	.62	1.22				T.		3.30
Stevens Point	Wisconsin					.05	.05								.20	.25	.23	1.20	1.20		3.00					1.50	.50					.13	8.31
Sugar Camp Dam	do	T.					.68								.80				1.03	.43	.40				.29		.25						3.88
Tomahawk	do						.50													.30						.40	.60						1.80
Trout Lake	do		T.			T.	.50								T.	.50		T.	T.	.65						.25	.85	.45					3.20
Twin Lakes Dam	do						.63								.96					.72							.25	.16					2.72
Valley Junction	do					.10	.06								.12						1.72						.48						2.48
Viroqua	Mi ssissippi					.04	.86								.04						1.56					.90						.32	3.72
Vudesare	Wisconsin						2.06								.50		T.			.40	.20						.40	.25					3.81
Watertown ‖	Rock						.40									.52	.30	1.28	.30			1.22				.02	.05						4.09
Waukesha	Fox					.05	.38	.28							.43	.22	2.05		.15	.02	1.42					.07						.14	5.21
Wausau ‖	Wisconsin	.02														1.32			.25	.03	.64					.88	.24	.11					3.49
Weyerhaeuser	Chippewa	.07					.42								.72			.28	.72	.07	.30					.24	.50						3.32
Whitehall	Mississippi						.10									T.		.10			1.60				.50		.50						2.80
Iowa.																																
Albia ‖	Des Moines			.05		T.		.90	.05													.60	.35			2.53						4.48
Algona	do		T.				1.13																		1.39	T.	T.					2.52
Alta ‖	Raccoon			.09			.06								.40							.04				.03	.01				.16	0.79
Amana	Iowa	.30				T.	.43	.10								.14					T.	2.80			.61	.72					T.	5.10
Ames	Skunk	.25		.08		.01	.02	.10													.80				.48							1.74
Baxter	do	.33		.08		.02	.04														.26	.82		T.	.02	1.82					T.	3.39
Belle Plaine	Iowa	.90				.08	1.15	.14								T.					.02	.58			.45	1.68					.05	5.05
Belmond	do	.05	.02		.02										.16					T.	.28				.27	.31					T.	1.11
Bloomfield	Mississippi	.01		1.00		.11	.08	.30														.40	.04			2.65					.09	4.68

TABLE 2.—*Daily precipitation for June, 1913. District No. 5*—Continued.

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Iowa—Continued.																																
Bonaparte	Des Moines	.03				.47		.91														.06	.16	.04	.41	1.79					.09	3.96
Boone ||	do	.38		.05			.28	.01													T.	.28				.51					.09	1.60
Britt	Iowa		.06		T.		.77								.07						.42				.25	.42	.13					2.12
Burlington ||	Mississippi	.02				.25		.55								.10							.33	.13		1.05						2.43
Carroll ||	Raccoon	.54		.08		T.	.38								T.							.43				.85					T.	2.28
Cedar Rapids ||	Cedar	T.				T.	T.	.26								1.74					T.	1.08	.30			1.02					.03	4.43
Charles City	do		T.				.18								.03	.32					.38				.09	.61					T.	2.21
Clear Lake	do																															
Clinton	Mississippi	.05				.82		.23								.30		.19			T.	1.93				.42					.68	4.62
Columbus Junction	Iowa	.65				.85		.65														2.15			.31	1.00					.52	6.13
Davenport	Mississippi	.64				.88	.90	.61							.36	.04					.01	1.59		T.	.05	.46					.55	6.09
Decorah	do					.05	.85								T.						.50				.28	.12						1.80
Delaware	do					.49	.01								.38	.53					.02	.08			.34	.29					.27	2.41
Des Moines	Des Moines	.31		.03		.04	T.	.07													.77	.28		T.	1.74	.28					T.	3.52
Dubuque	Mississippi					.23	.68								.17						.03	.27		T.	.05	.13					.36	1.92
Earlham	Raccoon	.34		.40		T.	.07	.06													.19	.68			.26	.73					.05	2.78
Elkader	Mississippi					.30	.08								.42		.52		T.		.10	.12			.25						.06	1.85
Elma	Wapsipinicon		T.				.22								.08	T.					.84	.02			.35	.34	.01				T.	1.86
Estherville ||	Des Moines	T.		.50													T.				.40	.10				1.90	.90				.10	3.90
Fairfield	Skunk	.06				.56	.01	.45														.45			1.08	1.69					.19	4.49
Fayette	Mississippi		T.			.20	.45								.08						.20	.05			.06	.30	.16				.20	1.70
Forest City ||	Cedar			T.			.59								.07						.11	.37				1.44	.15					2.73
Fort Dodge ||	Des Moines	.05					.18								.20						T.	.42			.03	.90						1.78
Fort Madison	Mississippi	T.				.30	T.	1.90								T.						T.	.60	T.	.15	1.12				T.	.10	4.17
Gilman	Iowa																															
Grand Meadow	Mississippi					.12	.63								.58		.02				.80				.10	.20	T.					2.45
Grinnell	Iowa			.07			4.75	.50													.16	.92			.60	1.94						8.94
Grundy Center	Cedar	T.		.14		.46	.14														.09	.11			.56	.74						2.24
Guthrie Center	Raccoon	.30		.43	T.	T.	.19								T.						.42	1.11			.47	.32					T.	3.24
Hampton	Cedar	.05			.08	.15									.19					.04	.36	.22			1.30							2.39
Humboldt	Des Moines						.13								.30						.31				.27	.11						1.12
Independence	Wapsipinicon		T.			.20	.04									.40					.09	.05			.10	.45					.05	1.38
Indianola	Des Moines	.41		.13		T.	.26	.81	T.						.05				.15		.18	1.92			.17	2.17						6.25
Iowa City ||	Iowa	1.51				.09	.05	.08	.20							.61				.22	T.	.91	.79			1.80	.02					6.28
Iowa Falls ||	do	.13		.03		.10	.28	.07								.07					T.	.64				.34						1.66
Jefferson	Raccoon																															
Keokuk	Mississippi	.01		.09		.03		.65							T.						T.	T	1.36		1.51	.49				T.	.01	4.15
Keosauqua ||	Des Moines	.05				.46		.60	.02														.16	.03		2.70	.05					4.07
Knoxville	do																															
Lacona	do	.18		.22				.54													.50	3.50			.01	4.00					T.	8.95
Lansing	Mississippi																															
Le Claire ||	do	.23				T.	1.29	.34	.39							.28					T.	.83	.50	T.	T.	.68	T.					4.54
Marshalltown ||	Iowa	.24		.52		.28	.05	.07								.05					.04	.22				.65	T.					2.12
Mason City	Cedar					.31	.16														.42				.22	1.56						2.67
Monroe	Skunk	.34		.04		T.	.13	.92							.16				.34		.11	1.58			.14	1.21						4.97
Mount Pleasant	do	.02				.84		.50													T.	.70		.03	.53	1.42					.04	4.08
Muscatine ||	Mississippi	2.50				.06	.60	.18	.44							.84					.02	.92	.70			1.05	T.					7.31
New Hampton	Wapsipinicon					T.	.76								T.						.20				1.24	.51						2.71
Nora Springs	Cedar		T.		T.	.06	.33								.04	T.					.49				1.52	.64						3.08
Northwood	do					T.	.58								.08				.02	.18	.50				.52	1.45	1.13					4.46
Olin	Wapsipinicon	.08				.10		.30								.21						1.90			.15	.90	T.				11	3.75
Osage	Cedar						.10								T.					T.	.96				.50	1.32	.04					2.92
Oskaloosa	Des Moines	.40		.06		.02	.02	.18											.07		.53	2.17			.36	2.06						5.87
Ottumwa	do		.33			T.		.40														.07		.10								0.90
Pella	do	.41		T.	T.	T.	T.	.71											.31		.40	1.25		T.	.20	1.14						4.42
Perry	Raccoon	.71			T.		.14														.13	.41			.04	.23					.01	1.67
Pocahontas	do			T.		.02	.22								.41						.04			.30								0.99
Rockwell City	do														.50					.80	.30					1.10						2.70
Sac City	do	.01	T.			.26								T.	.35						.50	.02			.01	.15					T.	1.30
St. Charles	Des Moines	.32		.37		T.	.07	.86											.25		.41	2.59			.12	2.80						7.79
Sigourney	Skunk	.40				T.		.35											T.		T.	3.55			.33	1.83					.07	6.53
Stockport	Storm Lake	.01		T.		.75	T.	.65														.16	.02	T.	.95	1.48				T.	T.	4.02
Storm Lake	Raccoon				.03		.47								.44						.08				.05	T.					.08	1.15
Tipton	Cedar	.12				.17		T.								.86						2.99				1.16					.18	5.48
Toledo	Iowa	.23		.12		.37	.02														.06	.60			.80	.70						2.90
Washington	Skunk	.28				.16		.53														2.57			.27	1.40					.88	6.09
Waterloo ||	Cedar			T.		.27	.19	.13								.17						.25				.60	T.					1.61
Waukee	Raccoon	.26		.01		.02	.10	.07													1.43	.60		T.	T.	.53					.02	3.04
Waverly	Cedar																															
Webster City	Des Moines	.19		.03			.25								T.						.42	.06			.38	.38					T.	1.71
West Bend	do		.04		T.		1.59								.05										.08							1.76
Whitten	Iowa	.38		.27		.53	.37														T.	.32			.97	.35						3.19
Winterset	Des Moines	.51		.25		T.	.02	.18													.27	1.04			.08	1.22						3.57
Missouri.																																
Gorin	Mississippi			.04		.49		.82															.35		2.22						.45	4.37
Hannibal	do					T.		T.											.01		T.	.43	.02	T.	1.57	.21					.07	2.31
Louisiana	do	.23				1.03		T.											.01			.70	1.85	.06	1.10						.02	5.00
Macon	do	.01		.01		.80	T.								T.						T.	.10	.31		.74	1.36						3.33
Mexico||	do						.12																.28	T.	.15	.22	.02					0.79
Palmyra	do							.37															.90		1.83	1.11	.19	.08		.97		5.45
Steffenville	do	T.						T.													.45	T.	.20	1.45						.35	T.	2.45
Sublett	do					.25		1.00														T.	.40		1.20	.80						3.65
Vandalia	do																						.63		.33					.30		1.26
Warrenton	do		.04				T.																.53	.45	.08	.98					T.	2.08
Indiana.																																
Collegeville	Iroquois	.89						.62														.68		.17		.11						2.47
Knox	Kankakee	1.09															T.					.53	.01	T.		.10						1.73
Laporte	do							.06									.42					.65			.06	.05						1.24
Plymouth	do	.75						.07									.19				.36	.47			.02	.13						1.99
South Bend	do	.01						.13									.04					.58				.03						0.79
Illinois.																																
Aledo	Mississippi	.48				1.00		.68								.49						2.27			.08	.51					.10	5.61
Alexander	Illinois						.03	.03											T.		T.	1.29	.81	.08	.99	.04					.22	3.49
Antioch	do					.31	T.								.52	.35	.15	.36			.05	.33				T.						2.07
Astoria	do	T.				T.	T.	.87								.05			T.	T.	T.	.08	1.60	.10	.76	.20					T.	3.66
Aurora	do	T.														.10		T.			T.	.75			T.	.20						1.05

TABLE 2.—*Daily precipitation for June, 1913. District No. 5*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Illinois.																																
Beardstown ‖	Illinois							T.	.10	.30						T.	T.				.08	T.		.50	.05	.10	1.25	T.					2.38
Bement	Mississippi								.11													T.	.09	.64		.19					.47		1.50
Bloomington	Illinois																.06						.68	.71	.01	2.18	.91						4.55
Cairo	Mississippi			.01	T.			.46	.05	T.													T.	.49	T.	.04				.02	T.	T.	1.07
Camp Point	do					T.	.16		.30								.09				T.	T.	.39	.17	.62	1.30	1.11				T.		4.14
Carbondale	do				.55			1.22		.08														.22	.10	.10				.34	.01		2.62
Carlinville	Illinois																						T.	.57	.02	.42							1.01
Carlyle	Mississippi		T.	.03	T.		T.	T.																.13	1.51	1.60						T.	3.27
Chester ‖	do					.06			.16	.06	.04										.08			.22	1.78	.36	.04					T.	2.80
Clinton	Illinois		T.						.35													T.	.21	.95	.01	.36	.04						1.92
Cobden	Mississippi							T.	T.	.03													T.	.25	.22	.15					.25		0.90
Dakota	do		.02				.53	.42	.08								.33					T.	.40				.04					.66	2.48
Decatur ‖	Illinois								T.	.09											.02			.63	.43	.50	1.23						2.90
Dixon ‖	Mississippi							.53	.07								.55			.40			.80	.65			.15	T.					3.15
Du Quoin	do				.12			.03	.07	T.														.74	.76						T.	T.	1.72
Dwight	Illinois		.20				.03		.20								.04		.30				.99			.31	.25				.08		2.40
East St. Louis ‖	Mississippi							.21														T.		.03	.89	.51	T.						1.64
Edwardsville	do																			.05			.45	2.82	.24	1.30							4.86
Elgin	Illinois		T.				T.										.33			.03	T.		1.05				.12						1.53
Ewing	Mississippi																																
Fairview	Illinois		.01				T.		.71								.05	.55	.01	.34	.40												2.12
Galva ‖	do		1.24					.21	.68	.42							1.06					T.	.25	1.41		.02	.88	.01					6.18
Grafton ‖	Mississippi		T.	.14																				T.	1.12	.04	1.74	T.					3.04
Greenville	do		.63	.04			T.													.20			1.15	.88	.21	2.02	.24						5.37
Griggsville	Illinois		T.		.07		1.88	T.	.47								.03				.06		.48	.60	T.	.84	.11						4.54
Havana	do								1.00								.12			.07			T.	1.30	.08	.44	.14						3.15
Henry	do		.72				T.		1.29								.15						1.32			.21	.05						3.74
Hillsboro ‖	Mississippi			.06																					12	.15	.20	2.65					3.18
Joliet	Illinois		.47				.03		.07							T.						T.	1.00				.17						1.74
Kishwaukee	Mississippi		.07				.43	.52	.03								.33					T.	1.04				.08					.27	2.77
La Grange	Illinois					T.																T.	.64			.02	.23						0.89
La Harpe	do		T.				.03		1.19								.04					T.	T.	1.24		.32	.72						3.54
Lanark	Mississippi		.09				.60	.03	.04								.14	T.				T.	.55				.12					.05	1.62
La Salle	Illinois		.47				.20	.08	.41								.15		.37			T.	1.57			T.	.07				T.		3.32
Lincoln	do		T.					T.	.13								T.					T.	.59	1.22		.13	.24						2.31
Macomb	do		T.					.07	.87								.02							1.23	.13	.33	.43						3.08
Manteno	do		.51						.37										T.				.96				.21						2.05
Martinton ‖	do			.35					.28	.42														.72	T.	.10	T.	T.					1.87
Mascoutah	Mississippi				T.		T.		T.											T.				.60	.95	.17	.20						1.92
Minonk	Illinois		.33						.52								.04						.94		.01	.09	.07						2.00
Monmouth	Mississippi						.08		.26								.80					.02	.70	.03	T.	.02	.58						2.49
Morris	Illinois		.29				.04		.30											T.			.87			.03	.09						1.62
Morrison	Mississippi		.08				1.27		.07								.38		.04			T.	1.92				.39					.02	4.17
Morrisonville	Illinois								.21											T.			.22	.51	.08	.95					T.		1.97
Mount Vernon ‖	Mississippi			.12																					3.80	.25	.40						4.57
Nashville	do			.04	T.					T.										T.					1.64	.18							1.86
Oregon	do		.05				.47	.01									.43						.85				.20					.15	2.16
Ottawa	Illinois		.13				.22		.31											.29			1.39		.01	.01							2.36
Pana	Mississippi								.21														.14	.45	.39	.70	.05						1.94
Paw Paw	Illinois		.05				.11	T.	T.								.18			.65		T.	.97			.05	.03						2.04
Peoria	do		.35					T.	.93								.18						.36	.01	.01	.54	.12						2.50
Pontiac	do		.33						.42								.03		.42				.67		.02	.39	.02				T.		2.30
Quincy ‖	Mississippi							.18	.40								T.							.23	.01		4.93	.11					5.86
Riley	do		T.				.28	.01									.31		.10			.01	1.23				.05				T.	.05	2.04
Roberts	Illinois		.15						.55								T.		T.			T.	.91	.04	.22	.46	.01				.15		2.49
Rockford ‖	Mississippi		.02					.45	.14								.34						.60	.01			.03						1.59
Rushville	Illinois		T.		T.				.41								.04					T.	.08		.72	.34	.36				T.		1.95
St. Charles	do		.01				T.		T.								.32			T.	.10	T.	.80			T.	.22					T.	1.45
St. Peter	Mississippi		.05				T.															.32	.33	.20	1.50	T.							2.40
Sparta	do							T.	.04	.02	.02												.04	.01	2.60	.03							2.76
Springfield	Illinois		T.				T.		T.											19			.84	.76	T.	.03	.02						1.84
Streator ‖	do		T.	.15				.18	.05	.11							.17			.10			.11	.87		T.	.12	.01					1.87
Sullivan	Mississippi							T.	.04												.40		.04	.44	.48	.33	.40						2.13
Sycamore ‖	do		T.					.18									.61				T.		.96	.19			T.					T.	1.94
Tiskilwa	Illinois		.59				.47		.98								.40		T.			T.	2.35	T.	T.	.18	.15						5.12
Walnut	Mississippi		.12				.32		.16								.51		.29			T.	1.39			.36	.12						3.27
Warsaw ‖	do				.16				1.10															1.40	.03	.63	1.49					.11	4.92
Waterloo	do								T.	T.									T.			T.	T.	1.08	1.22	.40	T.						2.70
White Hall	Illinois								T.	T.											T.	T.	T.	.78	.02	.28							1.08
Windsor	Mississippi								.02											.04			.08	.62	.42	.35	.65						2.18
Winnebago	do		.12				.79	.51									.30						.95				.10					.43	3.20
Yorkville	Illinois		.01				T.																.99			.01	.15	.15					1.31

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for June, 1913. District No. 5, Upper Mississippi Valley.*

Date.	North Dakota.										Minnesota.															
	Bottineau. §§		Devils Lake.		Lisbon. §§		Minot. §§		Pembina. §§		Collegeville.		Crookston. §§		Grand Meadow.		Montevideo. §§		Moorehead.		New Ulm. §§		Pine River Dam.		St. Paul.		Winnibigoshish.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	77	45	72	46	78	56	77	45	72	52	78	58	72	40	79	58	76	52	73	51	77	58	74	56	75	60	72	48
2....	72	49	68	50	81	50	72	52	66	48	74	50	70	54	75	47	80	50	78	48	73	46	72	48	73	52	68	45
3....	70	39	66	42	63	45	70	40	62	34	69	50	65	46	67	54	74	49	67	46	72	53	75	42	71	53	65	45
4....	74	39	72	50	74	50	75	50	74	41	69	49	73	43	71	45	76	49	74	46	78	51	78	34	64	52	70	38
5....	82	55	87	46	96	54	85	55	74	52	85	55	81	54	79	66	90	55	85	59	84	57	81	51	85	57	75	48
6....	62	38	58	39	76	54	64	42	52	34	72	53	59	42	70	59	53	53	67	44	67	64	79	49	73	52	64	45
7....	66	35	62	34	67	35	68	36	54	32	62	39	62	36	64	43	70	41	65	35	62	44	61	38	61	44	65	34
8....	72	40	69	38	67	38	72	35	70	36	62	41	71	42	64	39	65	40	69	40	70	40	64	33	63	43	68	38
9....	79	46	72	47	72	34	76	44	68	41	67	41	73	44	65	35	69	39	72	41	70	40	70	33	66	44	74	42
10....	80	49	77	51	72	40	82	56	74	42	70	46	77	48	75	43	75	42	76	44	73	42	71	45	71	45	72	42
11....	89	53	85	55	83	46	88	60	82	44	78	49	85	54	80	49	81	46	82	49	82	44	79	50	77	49	79	41
12....	95	60	92	62	88	61	92	63	94	54	83	58	89	60	82	56	85	60	89	58	85	54	85	57	82	55	84	40
13....	90	62	88	61	84	61	80	58	90	58	80	60	90	64	81	61	84	55	86	60	82	57	85	55	83	57	85	58
14....	88	55	89	53	92	58	89	56	90	55	81	60	88	64	84	63	88	60	91	64	84	65	86	58	81	64	78	60
15....	81	55	82	58	92	56	81	57	81	58	94	66	92	63	93	65	95	63	92	64	96	63	88	58	95	66	88	58
16....	83	46	81	54	78	58	80	50	78	52	80	65	81	54	94	64	87	60	76	54	90	64	80	52	86	68	84	60
17....	81	48	72	47	78	56	84	52	76	40	79	58	70	48	90	60	85	58	74	52	93	63	70	48	84	61	78	45
18....	69	48	73	51	85	53	74	53	74	50	89	48	76	53	94	63	96	57	86	56	98	63	85	47	95	60	82	50
19....	80	56	77	54	75	60	78	56	80	55	88	59	78	60	90	66	93	78	78	62	95	71	77	57	82	66	74	57
20....	83	56	79	50	80	55	82	51	85	44	80	59	80	50	78	65	82	63	81	56	85	66	81	56	83	62	83	55
21....	87	54	80	50	84	52	84	55	88	44	80	58	80	48	79	61	84	55	82	50	82	61	79	49	84	61	82	50
22....	91	55	87	57	87	45	93	61	88	63	84	60	87	50	82	59	85	55	87	53	88	59	84	46	85	62	85	48
23....	94	62	95	66	94	60	96	60	90	63	81	62	90	67	83	52	85	56	88	61	88	66	81	60	80	62	83	58
24....	85	64	88	64	90	64	84	61	92	62	80	64	94	70	81	64	86	60	90	64	85	65	82	68	80	65	85	60
25....	78	53	78	59	85	56	77	56	80	58	86	65	86	63	84	63	88	65	82	58	92	67	82	66	86	68	84	65
26....	61	51	65	53	82	60	60	52	70	51	84	67	80	64	86	65	88	65	87	63	92	66	84	63	87	64	88	64
27....	69	51	71	52	87	59	65	52	72	52	90	75	83	60	90	70	94	78	89	59	96	72	86	66	91	77	89	64
28....	90	55	96	59	98	59	81	54	95	54	91	63	97	60	94	71	95	76	96	74	98	75	93	68	94	74	94	65
29....	83	66	86	70	90	68	83	64	92	70	88	75	94	68	93	70	92	73	91	67	95	75	92	66	92	76	93	64
30....	76	57	77	58	83	56	76	58	78	62	82	65	82	64	83	69	84	65	82	62	83	70	82	67	83	69	78	60
Mns.	79.3	50.7	78.1	52.5	82.0	53.0	78.9	52.8	78.0	50.0	79.5	57.3	80.2	54.4	81.0	58.2	82.8	57.3	81.2	54.7	83.8	59.4	79.5	52.9	80.4	59.6	79.0	51.6

Date.	Wisconsin.														Iowa.											
	Eau Claire.		Grantsburg.		Hancock.		La Crosse.		Madison.		Prentice.		Wausau.		Algona.		Cedar Rapids. §§		Charles City.		Davenport.		Des Moines.		Dubuque.		Keokuk.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	77	60	84	46	80	61	81	56	77	56	76	54	75	60	78	60	83	64	79	52	83	65	81	65	82	64	81	67
2....	75	46	76	41	78	50	81	50	78	52	76	48	74	48	78	46	85	54	78	47	82	57	81	56	82	56	84	61
3....	74	54	73	47	74	54	74	53	71	57	71	44	69	51	74	57	77	57	74	51	81	60	75	63	74	60	84	60
4....	70	44	72	35	74	50	78	48	73	51	68	34	68	41	76	54	79	52	75	51	77	54	77	57	75	52	81	58
5....	78	53	84	54	70	55	75	58	66	57	72	52	69	52	84	58	80	56	82	59	77	60	86	63	74	62	87	65
6....	78	55	80	58	78	60	80	55	79	56	74	62	80	58	80	61	88	63	79	56	86	67	85	65	82	64	87	69
7....	65	42	64	34	74	41	64	46	56	40	62	33	58	37	64	46	61	53	63	44	67	43	65	52	64	46	73	46
8....	66	38	69	30	59	34	64	40	55	38	62	28	60	33	64	40	63	41	62	42	62	39	63	44	61	40	62	40
9....	68	39	72	31	63	37	67	41	60	40	62	35	63	36	67	40	66	41	65	39	64	41	65	44	63	42	64	44
10....	73	39	75	43	73	39	71	40	70	46	69	32	71	35	71	43	71	43	71	40	70	44	70	44	69	43	72	44
11....	80	40	81	46	79	47	79	46	74	49	74	35	76	43	77	58	82	47	77	43	76	50	76	50	77	46	77	49
12....	84	47	87	56	83	50	82	50	77	55	79	41	81	48	80	49	87	48	82	47	80	52	80	51	80	49	83	51
13....	85	52	88	59	86	56	84	55	81	57	83	50	84	52	82	53	89	49	82	50	84	57	82	57	83	55	85	61
14....	82	62	80	64	86	62	83	65	82	60	83	59	77	57	85	61	93	57	87	63	87	64	88	65	86	63	88	65
15....	96	59	.....	.....	96	63	95	66	87	65	88	55	87	59	95	64	96	66	96	62	90	65	96	72	91	68	95	73
16....	90	62	.....	.....	95	65	93	70	90	65	88	53	88	60	92	77	97	70	93	66	95	73	96	70	92	71	95	71
17....	87	59	94	56	89	60	90	64	81	65	85	45	83	57	94	.....	99	70	95	64	95	71	94	66	90	66	96	68
18....	90	60	93	65	91	60	89	65	85	61	86	55	83	56	94	.....	99	66	95	67	94	66	95	70	87	64	98	71
19....	86	69	86	54	95	70	95	70	90	70	86	59	76	59	94	.....	96	70	92	66	94	75	88	69	93	71	94	75
20....	81	67	86	55	75	64	77	67	77	65	75	63	75	65	82	74	89	71	77	68	91	71	88	69	79	67	94	72
21....	83	59	84	50	83	59	82	64	75	62	81	54	80	57	84	63	77	66	81	65	73	63	77	68	78	61	84	67
22....	84	55	88	50	84	60	82	61	77	60	81	45	81	53	86	66	80	57	82	57	79	56	78	61	80	56	68	62
23....	82	58	86	61	81	55	83	57	79	57	78	53	79	56	84	53	78	63	82	55	78	61	79	66	77	57	87	67
24....	80	61	85	64	85	61	87	68	82	63	81	56	82	58	84	66	78	64	88	66	83	71	86	70	87	69	88	67
25....	85	68	86	67	84	68	84	68	80	67	82	65	79	65	88	67	89	66	84	63	84	67	84	66	83	68	90	66
26....	87	67	90	66	92	68	90	69	88	72	84	63	82	61	91	72	94	67	89	69	90	74	90	75	89	75	92	75
27....	93	73	95	73	95	74	93	74	72	73	90	70	91	66	94	.....	98	75	92	72	93	76	91	73	93	75	95	76
28....	95	72	99	58	100	73	97	72	95	73	93	68	92	66	97	71	98	73	95	72	97	77	94	74	96	72	97	76
29....	94	74	98	75	100	75	96	74	95	74	93	69	94	71	94	.....	100	75	95	74	97	77	92	77	96	74	98	76
30....	91	77	90	66	95	72	88	73	91	72	90	72	87	73	86	70	93	77	85	70	92	71	88	75	91	72	93	77
Mns..	82.0	57.0	83.8	53.7	83.2	58.1	82.8	59.5	78.8	59.3	79.1	51.7	78.1	54.4	83.2	58.8*	85.5	60.7	82.6	58.0	83.4	62.2	83.0	63.2	81.8	60.9	85.7	64.0

TABLE 3.—*Maximum and minimum temperatures for June, 1913. District No. 5*—Continued.

Date.	Hannibal, Mo.		Laporte, Ind.		Illinois.															
					Cairo.		Greenville.		La Salle.		Monmouth.		Mount Vernon. §§		Peoria.		Springfield.		Winnebago.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	85	65	81	49	96	73	97	66	84	60	83	61	95	72	79	65	89	69	80	56
2	85	60	80	42	90	70	90	64	82	55	83	56	87	60	86	59	90	63	82	48
3	84	57	79	48	82	70	89	65	82	55	83	57	80	64	83	59	87	62	75	58
4	84	60	75	44	86	67	90	57	77	51	81	49	85	65	80	54	84	58	79	46
5	90	68	80	49	89	70	90	64	80	62	85	61	88	64	88	63	89	64	69	56
6	92	70	92	57	91	67	96	66	90	60	85	65	92	66	92	67	96	69	85	65
7	72	47	83	46	88	64	85	58	60	42	79	44	85	66	74	43	78	46	65	44
8	65	43	63	37	65	57	75	49	60	39	64	36	70	53	64	40	67	41	59	34
9	66	44	68	35	68	53	72	44	63	39	64	38	58	47	66	40	68	42	62	35
10	74	47	70	36	73	52	79	42	70	39	71	39	75	47	73	44	76	43	73	37
11	76	43	71	36	76	53	82	46	77	44	79	42	79	46	77	45	79	48	80	42
12	85	44	80	39	84	57	89	48	82	45	83	48	84	46	83	45	86	52	82	47
13	87	55	92	57	86	59	90	57	85	53	89	53	88	50	86	49	89	57	85	50
14	91	63	98	51	88	61	94	55	86	60	89	54	90	50	88	59	91	60	86	56
15	96	69	97	62	90	64	98	62	90	66	93	63	94	60	91	64	96	68	90	62
16	96	67	98	64	94	65	100	62	96	72	94	64	98	65	96	64	99	71	98	70
17	97	63	85	63	98	67	103	66	97	68	96	66	99	64	96	68	99	68	90	72
18	99	70	86	56	102	72	103	68	91	62	97	66	100	68	94	64	97	70	92	57
19	95	72	93	62	99	71	101	70	96	68	95	69	101	67	96	70	99	72	94	67
20	95	72	86	64	96	73	99	66	91	71	90	71	101	67	93	69	96	73	84	68
21	93	69	74	63	96	74	100	69	71	59	.....	67	102	71	82	64	94	68	74	60
22	76	65	76	53	89	66	82	68	78	53	74	57	87	70	72	60	72	63	76	50
23	86	69	81	50	85	72	86	68	78	61	84	64	79	65	83	65	84	68	83	53
24	86	66	83	65	88	71	83	67	83	69	84	67	82	68	81	69	82	70	87	63
25	91	68	85	65	90	74	89	69	84	69	88	67	88	70	87	66	90	71	85	66
26	93	74	92	68	95	74	93	65	91	73	93	69	94	67	92	72	94	70	91	72
27	97	77	95	60	98	78	98	71	95	73	95	69	96	71	96	72	96	73	95	70
28	97	73	92	70	97	76	99	73	98	73	98	77	98	72	98	73	99	77	100	69
29	97	73	96	68	100	75	99	75	99	75	99	73	98	76	99	74	100	79	100	70
30	96	75	97	70	98	76	99	75	96	75	94	73	98	76	96	75	99	76	94	72
Means	87.5	62.9	84.3	54.3	89.2	67.4	91.7	62.5	83.7	59.7	85.9	59.5	89.0	63.1	85.7	60.7	88.8	63.7	83.2	57.2

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 6, MISSOURI VALLEY.

MONTROSE W. HAYES, District Editor.

GENERAL SUMMARY.

The principal feature of the weather of the month was the temperature contrast. During the first 12 or 13 days the conditions were dominated by high pressure of unusual intensity over the northern half of the district, resulting in a period of very cool weather. There were light frosts and temperatures in the thirties in localities of all the States comprising the district, and at points in Montana, North Dakota, Wyoming, and Colorado, favorably situated topographically for the occurrence of cold weather, the temperature fell below the freezing point. Immediately following the cool period warm weather set in and with the exception of a few brief intervals the weather was quite warm during the remainder of the month. Montana was the only State in the drainage area in which the temperature did not reach or exceed 100° at one or more stations.

Over a large area in the southern portion of the district practically no rain fell from the 8th to the 20th, and in some portions the drought which began in April remained almost unbroken at the end of June. The greatest damage to crops on account of dry weather and an unusually high percentage of sunshine was in western Kansas and Nebraska, and over the Osage and Missouri Valleys in Missouri. In South Dakota there was considerable relief given by well-distributed rains toward the close of the month.

In the district as a whole the month was remarkably free from destructive storms, although some local loss resulted from hail in Wyoming, Montana, and South Dakota, and at Alma, Mont., a severe windstorm damaged a number of houses, some of which were completely demolished.

A rather unusual feature was the large number of clear days in most of the drainage area; at many stations there were no cloudy days, and at an equally large number there was only 1 cloudy day. At the end of the month rain was needed in most of the country east of the foothills.

TEMPERATURE.

The average temperature for the month was above the normal, except at a few scattered stations in Missouri and Kansas, and in the elevated portions of Montana, Wyoming, and Colorado. The excess ranged from a few tenths of a degree in Colorado to more than 5° in eastern South Dakota; in most of the district it amounted to about 2.5°. The month was divided into two well-marked opposite temperature periods. One embraced the first 13 days, when unusually cool weather prevailed; the lowest temperatures occurred from the 7th to the 10th, and frost formed in some localities of all the States of the district. Low temperature records for June were equaled or exceeded at a number of stations. The second was a hot period and covered the remainder of the month, except for a few short intervals, when the temperature was nearly normal. At most of the stations the hottest weather was from the 15th to 18th or 22d to 28th. The highest thermometer reading was 107° at Ewing, Nebr., and the lowest was 17° at Riverside, Wyo., in the Yellowstone Park.

PRECIPITATION.

In Montana and Wyoming there were frequent local showers and the total precipitation for the month was in excess of the normal June average, except in the eastern counties. There was an excess also in small areas in the Dakota counties east of the Missouri River, and in northeastern Nebraska, south-central Iowa, north-central Missouri, and west-central Kansas. In the remainder of the district there was a deficiency, which as a rule was pronounced. Most of the precipitation was in the form of thundershowers and did not occur in well-defined periods, except in the lower or southeastern part of the drainage area, where generally wet weather prevailed on the 5th–6th and from the 20th to the 25th. The station having the largest monthly total, 8.30 inches, was Garneill, Mont.; Laporte, Colo., had 0.27 inch, which was the smallest amount that occurred at any station.

RIVERS.

The Missouri River and its tributaries above Omaha were moderately high for June, but nowhere was the flood stage reached. Below Omaha the stages were below the June average; they were almost stationary during the first half of the month and declined gradually during the latter half.

TABLE 1.—*Climatological data for June, 1913. District No. 6, Missouri Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Arapahoe	Fremont	5,200	3								1.69		0.60	0.0	7	5	23	2	sw.	Edw. L. Seymour.
Basin	Bighorn	3,862	14	69.1	+ 2.2	98	17	40	1†	46	0.52	− 0.48	0.52	0.0	1	20	9	1	nw.	O. J. Robertson.
Big Creek Station	Carbon	7,500	2	54.6		79[i]	23†	30[i]	11	44[i]	0.71		0.28	0.0	5	2[i]	15[i]	4[i]	sw.	U. S. Forest Service.
Boyd	Western	6,192	....	58.1		84	28	34	12‡	41	2.74		1.01	0.0	8	20	7	3	se.	Kirk Baker.
Burns	Laramie	5,400	3																	E. W. Bastian.
Casper	Natrona	5,101	4																	M. C. Cook.
Centennial	Albany	8,074	10	55.8		79	15	34	12	38	1.69		0.50	0.0	12	5	8	17	sw.	Louis A. Gregory.
Cheyenne	Laramie	6,088	42	60.8	− 0.7	88	16	40	12	36	1.18	− 0.39	0.39	0.0	9	6	17	7	s.	U. S. Weather Bureau.
Chugwater	Platte	5,282	12	61.8	+ 1.6	88[e]	28	40[a]	3†	40[a]	2.67	+ 0.47	1.74	0.0	3	8[a]	20[a]	1[a]	se.	A. H. Woolever.
Clark	Park	4,320	8	64.7		86	21	47	12	31	1.79		0.29	0.0	11	8	13	9	w.	Chas. A. C. Snow.
Cody	do	5,000	6	62.9		89	22	44	12	35	1.74		0.50	0.0	13	7	19	4	w.	D. A. Tinkcom.
Crandall Creek	do	6,124	....	51.8		78	22	26	12	47	2.38		0.51	0.0	18	9	9	12	sw.	U. S. Forest Service.
Dome Lake	Sheridan	8,821	5	49.8		70	22	32	1	33	3.55		0.89	0.0	14	4	19	7	sw.	Abe Mills.
Douglas	Converse	4,793	4	64.0		89	22†	40	30	46	0.83		0.25	0.0	8	27	2	1	se.	Henry C. Miller.
Dubois	Fremont	6,909	6	52.7		76	22	30	4	40	1.94		0.45	0.0	13	5	24	1	w.	Dr. F. H. Welty.
Eatons Ranch	Sheridan	4,600	8	62.9		89[b]	22	32[b]	12	38[b]	1.87		0.65	0.0	5	13[b]	14[b]	1[b]	n.	F. A. Eaton.
Echeta	Campbell	4,200	4								1.23		0.65	0.0	4	24	4	2	s.	M. R. Hunter.
Elk Mountain	Carbon		8								1.26		0.36	0.0	10					Wm. Richardson.
Encampment	do	7,322	4	59.0		81[b]	27	32[b]	11	44[b]	0.95		0.35	0.0	8	2[f]	22[f]	0[f]	sw.	U. S. Forest Service.
Ervay	Natrona	6,400	4	58.0		83	22	34	13	42	2.04		0.54	0.0	10	12	13	5	se.	Frank Jameson.
Fort Laramie	Goshen	4,270	35																	John Hunton.
Foxpark	Albany	9,015	3	47.7		73[k]	27	25[k]	8	43[k]	1.35		0.50	0.0	4	13[i]	3[i]	2[i]	sw.	U. S. Forest Service.
Germania	Bighorn	4,312	2	64.4		90	22	42	7	41	1.22		0.62	0.0	12	10	20	0	nw.	J. W. Peper.
Gillette	Campbell	4,546	7																	M. H. Shields.
Horse Creek	Fremont	8,000	1	47.0		71	22	27	12†	40	3.78		0.75	0.0	16	6	10	14	w.	U. S. Forest Service.
Hunters Station	Johnson	8,000	7	52.4		77[d]	22	32[d]	5	34[d]	4.45		0.94	0.0	14	9[d]	8[d]	9[d]	w.	Do.
Hyattville	Bighorn	4,632	14	68.1	+ 4.1	96	17	45	5	46	0.24		0.09	0.0	5	3	11	16	w.	Wm. Booth.
Jireh	Niobrara	5,100	3								2.46		0.57	0.0	11	5	25	0	se.	P. L. Ford.
Kinnear	Fremont		....	63.4		89[a]	15†	39[a]	12	45[a]	0.46		0.22	0.0	4	10[a]	15[a]	4[a]	w.	John C. Hays.
Kirtley	Niobrara		9	62.8		88	28	39	30	39	1.70		0.76	0.0	8	17	10	3	s.	D. M. ZumBrunnen.
Kirwin	Park	9,187	4	45.2		64	20†	27	12	29	4.06		0.70	0	[illegible]	3	20	7	w.	C. L. Tewksbury.
Knowles	Crook	4,500	4								3.39		1.44	0.0	8	15	14	1	e.	Geo. A. Knowles.
Lagrange	Goshen	4,720	3	66.4		95	28	42	30	43	1.94		0.48	0.0	14	16	11	3	s.	Owen Shupp.
Lander	Fremont	5,372	21	62.1	+ 0.8	88	22	40	29	40	1.40	− 0.11	0.42	0.0	9	8	16	6	sw.	U. S. Weather Bureau.
Laramie	Albany	7,188	22	58.1	+ 1.7	81	28	38	1	37	1.70	+ 0.56	0.52	0.0	10	20	8	2		University of Wyoming.
Leo	Carbon	6,878	11																	C. A. Cowdin.
Lolabama Ranch	Park	7,052	9	53.4		78	12	28	16	44	0.80		0.20	0.0	9	11	16	3	w.	Mary E. Painter.
Lovell	Bighorn	3,825	7																	R. Fred Harrison.
Lusk	Niobrara	5,007	22	61.0	− 0.5	92	22†	40	7†	52	2.18	− 0.16	0.60	0.0	7					D. E. Goddard.
Manville	do	5,050	3								2.72		1.10	0.0	9	2	25	3	se.	L. C. Stoddard.
Moorcroft	Crook	4,311	9	66.8		93	17†	47	7	41	1.43		0.43	0.0	9	9	18	3	s.	C. T. McCampbell.
Moore	Albany	6,000	12	59.2	+ 0.1	87[f]	28	36[f]	2	47[f]	0.79	− 1.13	0.25	0.0	8	1[f]	19[f]	4[f]	e.	Edwin Moore.
Newcastle	Weston	4,319	6	68.6		94	22†	45	7†	36	1.91		0.52	0.0	7	5	20	5	w.	Dr. S. W. Johnson.
Pathfinder	Natrona	5,735	7	64.9	+ 1.7	88	20†	44	12	37	1.28	+ 0.22	0.43	0.0	9	6	24	0	sw.	U. S. Reclamation Service.
Pinebluff	Laramie	5,038	10	65.1	+ 2.9	94[f]	27	40[f]	10	40[f]	2.03	− 0.02	0.91	0.0	8	12[b]	1[b]	9[b]		C. L. Beatty.
Pine Ridge	Crook		1								3.90		1.67	0.0	8	2	17	11		J. E. S. Altaffer.
Powell	Park	4,376	5	64.6		89	21	43	12	36	1.65		0.54	0.0	10	4	11	15	nw.	U. S. Reclamation Service.
Rawlins	Carbon	6,748	11	61.2	+ 1.0	85	22	38	12	38	1.97	+ 0.86	0.56	0.0	8	12	13	5	w.	E. J. Ehrenfeld.
Rock River	Albany	6,900	....	59.6		86	22	37	12	43	0.22		0.09	0.0	6	23	5	2	w.	Rock Creek Conservation Co.
Rockypoint	Crook		1								2.19		1.15	0.0	8	14	12	4	se.	P. Woxen.
Saratoga	Carbon	6,785	15	60.4	+ 1.8	88	22	31	12	44	2.15	+ 1.28	0.90	0.0	6	12	9	9	w.	R. G. Hamilton.
Seven Mile Creek	do		2	53.6		75[a]	27	30[a]	2	38[a]	2.84		1.89	0.0	13	9[b]	0[b]	19[b]	w.	U. S. Forest Service.
Sheridan	Sheridan	3,790	18	64.0	+ 3.7	90	22	43	5	37	3.90	+ 2.00	1.28	0.0	13	7	21	2	se.	U. S. Weather Bureau.
Shoshone Dam	Park	5,385	7	62.7		86	22	45	12	33	2.15		0.97	0.0	7	3	25	2	w.	U. S. Reclamation Service.
South Pass City	Fremont	7,796	11	51.0		75	20	28	5	43	1.17		0.37	0.0	11	4	17	9	sw.	John Sherlock.
Sundance	Crook	4,750	1	62.4		88	22†	40	7†	38	1.75		0.50	0.0	8	11	17	2	w.	Geo. W. Ashdown.
Thermopolis	Hot Springs	4,350	9	66.0		93	22	43	30	42	1.09		0.29	0.0	10	11	17	2	sw.	A. L. Duhig.
Ulm	Sheridan	4,448	1	64.1		94	22	42	1	43	2.75		1.00	0.0	10	3	26	1	se.	W. H. Coleman.
Upton	Weston		1	69.8		95	28	41	5	46	2.63		0.80	0.0	5	10	14	6	se.	Ray C. Thompson.
Verona	Sheridan	4,360	4								2.21		0.70	0.0	6	7	23	0	se.	O. A. Roode.
Wheatland	Platte	4,700	2	64.1		104	16	33	12	62	1.35		0.57	0.0	7	11	12	7	se.	C. A. Rockwell.
Wiants Ranch	Carbon	7,400	3								2.10		0.67	0.0	9	3	22	5	sw.	Ira G. Wiant.
Woodrock	Sheridan	8,500	2								2.76		0.0	0.0	18	8	16	6	sw.	U. S. Forest Service.
Worland	Washakie	4,033	2	67.2		95[a]	22	43[b]	5	42[b]	1.66		0.75	0.0	9	6	23	1	nw.	Prof. B. C. Buffum.
Wyncote	Goshen	4,186	6	64.2		90	22†	40	30	42	2.66		0.66	0.0	9	2	28	0	nw.	U. S. Reclamation Service.
Yellowstone Park	Yellowstone Park	6,200	25	54.9	− 1.1	76	19	37	15	36	2.09	+ 0.45	0.79	0.0	15	3	16	11	sw.	U. S. Weather Bureau.
Fountain	do	7,220	7					30	1		2.57		0.70	0.0	12	9	3	18	sw.	U. S. Army.
Gallatin	do	7,400	2								0.65		0.20	0.0	4	9	0	21	se.	Do.
Grand Canyon	do	7,900	6	47.8		73	2	27[j]	1	45[j]	2.40		1.00	0.0	11	3	14	13	w.	Do.
Lake Yellowstone	do	7,733	9	48.9		70	16†	29	3	39	1.07		0.21	0.0	10	11	0	19	se.	Do.
Norris	do	7,500	9	49.0		71	22	29	15	36	2.79		0.60	0.0	15	10	6	14	w.	Do.
Riverside	do	6,500	7	46.6		88[k]	21	17	3	35[k]	2.37		1.05	0.0	15	5	14	11	sw.	Do.
Soda Butte	do	7,000	8	54.0		82	6†	30	1†	46	4.40		0.83	0.0	11	8	6	16	sw.	Do.
Sylvan Pass	do	7,000	6	51.6		79	20	29	3	45	4.83		1.47	0.0	12	9	1	20	w.	Do.
Thumb	do	7,772	7																	Do.
Tower Falls	do	6,250	4	53.9		79	16	30	21	47	2.24		0.58	0.0	15	9	14	7	w.	Do.
Upper Geyser Basin	do	7,395	9	55.4		82	19	31	1†	41	2.09		0.50	0.0	11	7	8	15	s.	Do.
Montana.‡																				
Absarokee	Stillwater	4,000	3	58.8		85	1	34	4	49	2.08		0.99	0	12	18	6	6	sw.	E. F. Bryant.
Adel	Cascade	5,200	14	57.2	+ 1.9	81	1	32	15	41	3.82	+ 0.61	1.50	0	12	8	16	6	w.	Mrs. Bessie F. Burch.
Agricultural College	Gallatin	4,700	15	58.1	− 0.2	80	22	38	15	34	3.19	+ 0.12		0	17	3	26	1	ne.	E. Burke.
Augusta	Lewis and Clark	4,071	14	58.3	+ 0.7	85	1	35	15	43	3.83	+ 0.62	1.04	0	8	13	13	4	w.	C. C. Covington.
Babb	Teton	4,461	6																	U. S. Reclamation Service.
Bald Butte	Lewis and Clark	6,500	3								5.60		0.60	0	16	4	15	11		M. W. Alderson.
Bigtimber	Sweet Grass	4,072	7	61.5		81	1	36	23	37	2.35		0.80	0	6	13	9	8	w.	F. A. Severance.
Billings	Yellowstone	3,115	17	65.8	+ 1.1	89	4	44	12	42	2.15	− 0.18	0.50	0	11	13	11	6		Dean J. Cole.
Blackleaf	Teton	4,260	5	54.7		78	1†	33	6†	42	3.52		1.95	0	7	12	8	10	w.	Roy McNeal.
Boulder Nursery	Jefferson	4,920	17	55.6	− 2.0	81	1	32	16	42	5.31	+ 3.27	1.84	0	17	3[b]	19[b]	6[b]		U. S. Forest Service.
Bowen	Beaverhead	6,060	6	50.0		77	9	27	11	42	4.18		1.27	0	14	12	5	13		B. B. Lawrence.
Box Elder	Hill	2,677									2.36		0.73	0	15	21	6	3	sw.	C. L. Herzog.
Bridger	Carbon	3,664	4																	L. E. Gard.
Broadview	Yellowstone		6	63.6		86	1†	39	8	40	3.34		0.58	0	11	24	4	2	ne.	Thos. S. Hunt.
Browning	Teton	3,980	4	57.4		82	10	32	17	42	2.20		0.80	0	6	21	7	2	w.	U. S. Reclamation Service.

TABLE 1.—*Climatological data for June, 1913. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
***Montana*—Continued.**																				
Busby	Big Horn		9	64.4	+ 3.3	89	27	38	9†	45	2.56	+ 0.39	0.84	0	9	6	23	1	e.	Rev. G. A. Linscheid.
Busteed	Stillwater		5	61.2	.....	83	1	39	3	40	2.66	.....	0.40	0	14	7	18	5	w.	T. H. Busteed.
Canyon Ferry	Lewis and Clark	3,644	14	64.0	+ 1.3	88	9	41	15	40	3.19	+ 1.00	1.48	0	11	11	12	7	nw.	W. L. Kirk.
Cascade	Cascade	3,361	8	62.4	+ 1.7	87	1	39	15	45	3.74	− 0.11	1.25	0	16	6	20	4	sw.	Dr. E. E. James.
Chessman Reservoir	Lewis and Clark	6,275	4	52.2	.....	74	1†	31	15	35	5.00	.....	1.80	0	15	14	7	9	sw.	C. D. Schmidt.
Chester	Hill	3,140	9	64.2	+ 5.0	87	10	45	4†	41	2.98	+ 0.16	1.00	0	8	13	17	0	w.	C. F. Baker.
Chinook	Blaine	2,502	14	65.2	+ 1.4	90	10	43e	6	40e	2.90	+ 0.30	1.16	0	11	13	15	2	e.	T. O'Hanlon Co.
Clearcreek	do		7																	Cortez Sedgewick.
Clydepark	Park	5,027	1	60.6	.....	83	3†	34	15	41	3.16	.....	0.90	0	13	5	7	18	se.	J. H. Eyman.
Conrad	Teton		2	61.8	.....	87	1	37	15	42	1.61	.....	0.63	0	9	15	12	3	w.	Robert J. Kelly.
Copper	Meagher		8								3.53	.....	1.07	0	12	10	15	5	w.	Orville Harris.
Crow Agency	Big Horn	3,041	30	67.2	+ 2.3	89	4	46	3	39	1.65	− 1.14	0.49	0	9	12	15	3	.....	Harry Throssell.
Culbertson	Sheridan	1,927	10	66.8	+ 2.1	92	23	38	7	39	2.82	− 0.24	0.65	0	14	7	16	7	w.	G. H. Coulter.
Cut Bank	Teton	3,700	14	61.0	+ 4.9	84	1†	39	16	41	2.58	− 0.33	1.11	0	8	20	8	2	w.	Chas. N. Thomas.
Denton	Fergus	3,500	4	62.6	.....	85	1†	44	3†	35	4.23	.....	1.30	0	13	13	9	8	sw.	P. J. Griesenauer.
Dillon	Beaverhead	5,147	15	57.0	− 3.5	84	23	34	16	43	6.02	+ 3.69	1.03	0	25	1	16	13	sw.	Prof. J. E. Monroe.
Dunkirk	Hill	3,293	1								2.04	.....	0.58	0	8	20	6	4	w.	B. C. Protzman.
Ekalaka	Custer		12	65.9	+ 3.2	92	14†	41	6	44	2.24	− 0.13	0.55	0	10	19	3	8	w.	William Freese.
Fallon	do	2,208	8	67.8e	.....	91	23	47e	1†	39e	2.93	.....	0.68	0	11	10	17	3	se.	Mrs. A. C Gifford.
Findon	Meagher	6,000	1	56.0	.....	75	1	36	15	32	6.13	.....	0.96	0	19	9	8	13	w.	Lewis Cameron.
Flathead Creek	Gallatin	6,000	2	51.0	.....	80	1	36	3†	41	6.44	.....	1.40	.....	18	4	4	22	nw.	Alta Williams.
Forsyth	Rosebud	2,514	6	68.8	.....	94	22	43	4	40	2.77	.....	0.60	0	10	14	7	9	nw.	H. Mackenzie.
Fort Benton	Chouteau	2,630	33																	Jere Sullivan.
Fort Shaw	Cascade	3,500	24	62.6	+ 1.6	86	1	42	7	40	3.01	+ 0.78	0.53	0	13	6	7	17	sw.	U. S. Reclamation Service.
Foster	Big Horn		3	66.2	.....	89	4†	45	1†	43	2.34	.....	0.47	0	12	16a	11a	2a	e.	E. K. Bowman.
Garneill	Fergus	5,500	4	57.9	.....	79	12	36	30	35	8.30	.....	1.30	0	19	1	9	20	se.	Thos. E. Scally.
Geyser	Cascade	4,147	.....	67.7	.....	80	1†	55	25	20	4.97	.....	1.44	0	17	8b	17b	3b	e.	I. G. Finfrock.
Glasgow	Valley	2,092	16	65.8	+ 2.1	91	11	44	5	41	2.33	− 0.06	0.68	0	13	8	11	11	ne.	W. M. Leonard.
Glendive	Dawson	2,069	22	69.3	+ 3.4	94	23	36	2	37	2.23	− 1.00	0.88	0	9	12	14	4	se.	E. C. Leonard.
Gold Butte	Hill		5	62.0	.....	87	1	42	16	39	2.19	.....	0.45	0	12	9	16	5	w.	Joseph Berthelote.
Graham	Custer		7	66.3	.....	92	22†	46	4	39	2.86	.....	1.06	0	11	16	13	1	se.	J. S. Rue.
Great Falls	Cascade	3,350	21	65.4	+ 2.6	88	1	47	15	38	2.94	− 0.36	0.74	0	15	7	19	4	e.	S. H. Bauman.
Harlowton	Meagher	4,165	5	62.8f	.....	86f	18†	35f	1	50f	3.26	.....	0.95	0	14	.....	.....	.....	w.	Joseph Muir.
Havre	Hill	2,505	33	65.2	+ 2.8	88	9	44	25	37	1.48	− 1.34	0.63	0	14	11	12	7	e.	U. S. Weather Bureau.
Hebgen Dam	Gallatin	6,700	7	53.8	.....	76	3†	36	11	39	3.90	.....	0.76	0	16	1	17	12	s.	T. L. Carson.
Helena	Lewis and Clark	4,110	33	61.4	+ 0.8	85	1	42	15	34	2.64	+ 0.53	0.98	0	20	6	9	15	s.	U. S. Weather Bureau.
Highwood	Choteau		6								4.18	.....	1.20	0	14	5	11	14	sw.	W. S. McCord.
Huntley	Yellowstone	3,014	7	65.9	.....	90	1	45	8	38	1.96	.....	0.42	0	11	15	14	1	se.	U. S. Reclamation Service.
Jordan	Dawson		7																	Jos. P. Parker.
Knobles Ranch	Hill		2								3.46	.....	0.89	0	13	16	7	7	w.	F. H. Knoble.
Lewistown	Fergus	4,010	15	61.2	+ 2.7	84	1	42	15	34	6.33	+ 3.01	1.64	0	15	14	5	11	w.	W. W. Watson.
Lonetree	Chouteau	3,280	7	64.9	.....	88	9	42	15	37	2.05	.....	0.46	0	10	19	8	3	w.	E. Wilson.
Lothair	Hill	3,301	1	62.6	.....	88	10	43	14	40	3.90	.....	0.95	0	7	19	8	3	w.	James H. Whiteley.
Lytle	Chouteau		1	62.3	.....	87	9	38	15	38	1.77	.....	0.50	0	13	17	12	1	sw.	J. F. Falt.
Malta	Valley	2,340	6	65.5	.....	90	10	37	6	39	2.44	.....	1.00	0	11	18	9	3	se.	U. S. Reclamation Service.
Medicine Lake	Sheridan		2	65.3	.....	90	11†	39	3	37	2.27	.....	0.90	0	12	18	8	4	se.	J. S. Colier.
Melstone	Musselshell	2,903	1	67.0	.....	87	1†	46	6	38	4.42	.....	1.10	0	13	13	13	4	nw.	C. W. Greening.
Mildred	Custer		4								3.62	.....	1.37	0	10	10	19	1	se.	Leon B. Clark.
Miles City	do	2,371	21	69.2	+ 3.2	90	4	47	6	38	3.32	+ 0.55	0.95	0	15	7	22	1	ne.	U. S. Weather Bureau.
Norris	Madison	4,845	6	60.7	.....	85	1	41	16	34	5.72	.....	0.74	0	18	3	18	9	s.	Madison River Power Co.
Olsen Creek	Jefferson	6,345	4																	Robert Olsen.
Pinegrove	Musselshell		1	57.6	.....	80	10	36	5	36	3.79	.....	0.85	0	11	5	20	5	w.	G. W. White.
Pipestone Pass	Jefferson	7,000	4								3.92	.....	0.78	0	16	8	20	2	w.	Mrs. T. Keirmeyer.
Plevna	Custer	2,757	1	65.0	.....	89	14	42	1	41	2.57	.....	0.47	0	11	20	4	6	se.	C. C. Conser.
Poplar	Sheridan	2,020	27	67.3	+ 2.3	96	23	41	7	40	2.42	− 0.49	0.65	0	10	18	8	4	se.	H. M. Cosier.
Red Lodge	Carbon	5,548	13	57.7	+ 0.8	80	22	36	12†	41	2.68	+ 0.20	0.67	0	11	7	17	6	se.	I. A. Draper.
Renova	Jefferson	4,383	14	59.4	− 1.1	82	3†	41	1†	40	3.43	+ 1.31	0.63	0	17	13	10	7	sw.	F. B. Elmer.
Ryegate	Musselshell	3,640	3	63.4	.....	91	2†	42	18†	43	4.16	.....	1.10	0	11	21	5	4	w.	H. W. Scherfenberg.
Savage	Dawson	2,050	7	67.4	.....	92	22	43	1†	38	2.22	.....	1.10	0	8	17	12	1	se.	U. S. Reclamation Service.
Shelby	Teton	3,276	1	62.8	.....	86	1	41	16	41	2.46	.....	0.65	0	11	15	7	8	sw.	Olaf C. Fjeld.
Sidney	Dawson		2	67.0	.....	89	12†	42	6	37	1.47	.....	0.37	0	7	7	8	15	n.	P. F. Blake.
Springbrook	do		11	65.9	+ 3.0	90	11†	34	2	48	3.39	− 0.80	1.10	0	13	12	15	3	se.	Mrs. H. L. Miller.
Sunlit Farm	Blaine		1	61.2	.....	86	10	33	6	39	3.00	.....	1.51	0	8	14	8	8	se.	C. R. Noyes.
Sun River Canyon	Teton	4,650	1	60.4	.....	84	9	40	6†	39	4.20	.....	1.20	0	11	9	13	8	w.	U. S. Reclamation Service.
Three Forks	Gallatin	4,066	2	61.9	.....	85	1†	41	13†	38	3.37	.....	0.58	0	19	9	6	15	sw.	C. E. Adams.
Utica	Fergus	5,000	18	59.6	+ 1.1	80	1†	39	3	39	4.64	+ 1.25	1.33	0	15	14	14	2	w.	P. W. Korell.
Valentine	do		6	63.8	.....	89	10	40	30	41	4.69	.....	1.62	0	10	12a	13a	4a	w.	B. M. Bean.
Valier	Teton		1	61.3	.....	83	1	39	15	40	3.98	.....	1.45	0	11	9	13	8	w.	Ford, Bacon, and Davis.
Wall Rock Mountain	Broadwater	5,600	4								4.07	.....	1.34	0	19	8	18	4	nw.	D. L. Doig.
Wheaton	Musselshell		1	63.7	.....	81	22	43	8	35	3.90	.....	1.12	0	12	5	14	11	e.	P. O. Balgord.
Whites Ranch	Custer		1																	Glen A. White.
White Sulphur Springs	Meagher	5,280	1	59.2	.....	80	9	36	15	37	2.55	.....	0.85	0	12	0	28	2	.....	P. R. Wild.
Wilder	Fergus		2	64.0	.....	86	16	44	6	36	4.28	.....	1.52	0	13	8	13	9	e.	J. O. Rogers.
Wolf Creek	Lewis and Clark		....	62.6	+ 3.2	87	1†	43	12	42	3.83	+ 1.16	1.62	0	18	6	18	6	w.	A. J. Reed.
North Dakota.																				
Aplin	Oliver		6	66.2	.....	99	23	34	7	38	1.95	.....	0.36	0	12	11	8	11	se.	J. C. Hagelbarger.
Arnegard	McKenzie		1																	A. B. Waterman.
Ashley	McIntosh	2,001	16	63.2	+ 0.6	95	23†	27a	7	45a	3.86	+ 0.24	0.85	0	7	15	0	15	se.	R. C. Miles.
Beach	Golden Valley	2,576	7	64.6	.....	92	22†	39	7	40	2.69	.....	0.75	0	12	19	6	5	se.	D. J. Steiner.
Belfield	Stark	2,583	2								2.00	.....	0.50	0	11	9	16	5	se.	E. W. Russell.
Berthold Agency	McLean	2,082	19	66.6	+ 3.3	100	23	35	7	42	1.97	− 2.15	0.65	0	8	17	11	2	se.	C. L. Hall.
Bismarck	Burleigh	1,674	39	67.4	+ 3.2	100	28	33	7	38	2.06	− 1.48	0.45	0	9	15	10	5	s.	U. S. Weather Bureau.
Buford	Williams	1,944	34	66.3	+ 2.0	92	23	44	6†	33	2.36	− 0.45	1.20	0	11	4	12	14	se.	C. H. McCune.
Carson	Morton		1	67.4	.....	101	28	32	7	44	1.75	.....	0.45	0	8	21	7	2	e.	D. J. Basquin.
Dickinson	Stark	2,543	21	65.4	+ 5.8	100	23	34	7	37	1.77	− 1.10	0.47	0	11	12	15	3	se.	L. R. Waldron.
Edgeley	La Moure	1,468	12	66.2	+ 3.0	98	28	30	7	41	3.74	+ 0.40	1.02	0	7	8	18	4	se.	O. A. Thompson.
Epping	Williams		5								2.80	.....	1.45	0	7	18	8	4	e.	M. E. Uggen.
Fullerton	Dickey	1,439	15	66.9	+ 3.9	97	28	33	7	38	3.19	+ 0.06	0.78	0	11	18	10	2	s.	F. O. Alin.
Garrison	McLean	1,901	18	65.7	+ 2.9	96	23	31	7	35	2.38	− 0.97	0.51	0	11	11	14	5	se.	G. L. Robinson.
Haley	Bowman		5								1.99	.....	0.45	0	7	.....	.....	.....	.....	A. O. Lawrence.
Hettinger	Adams	2,253	5	65.6	.....	98	23	40	6†	37	3.96	.....	0.91	0	9	17	9	4	se.	W. R. Lanxon.
Howard (near)	Divide	2,275	4	63.3	.....	91	23	34	7	40	2.93	.....	1.16	0	9	9	14	7	se.	C. P. Amsbaugh.
Jamestown	Stutsman	1,390	21	66.2	+ 2.6	96	23	34	7	37	3.13	− 0.63	0.63	0	11	23	1	6	sw.	Thos. Pettigrew.
Lamoine	Kidder	.....	5	64.8	.....	99	28	30	7	39	1.52	.....	0.39	0	8	13	16	1	se.	E. V. Virgin.

TABLE 1.—*Climatological data for June, 1913. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
North Dakota—Contd.																				
McHenry (near)	Eddy		3	65.3	.....	97	28	29	6	47	2.36	.....	0.72	0	10	21	9	0	ne.	P. E. Truden.
Marmarth (near)	Bowman		4	65.0	.....	93	22	42	6†	39	2.42	.....	0.83	0	10	13	7	10	se.	S. P. Grane.
Marstonmoor	Stutsman		4	65.3	.....	97	28	29	7	39	2.48	.....	0.65	0	10	13	15	2	se.	H. H. McCumber.
Medora	Billings	2,225	19																	Frank Gotschall.
Melville	Foster	1,590	15	70.6[c]	+ 7.5	101[c]	24	32[c]	7	44[c]	1.80	− 1.62	0.38	0	10	.....	.....	.....	nw.	J. P. Kidder.
Mott	Hettinger		6	67.0	.....	100	23	32	7	41	2.11	.....	0.87	0	8	12	8	10	se.	O. H. Opland.
Napoleon	Logan	1,955	21	64.9	− 0.5	98	23	28	7	41	4.31	+ 0.53	1.45	0	12	10	9	11	s.	C. J. Hoof.
New England	Hettinger	2,400	19	67.3	+ 4.9	100	23	35	7	43	1.99	− 0.52	0.50	0	9	7	16	7	se.	J. M. Connolly.
New Rockford	Eddy	1,531	2	65.7	.....	94	28	32	7	39	2.80	.....	1.15	0	11	16	12	2	se.	J. V. M. Sundberg.
New Salem	Morton	2,163	8	67.0	.....	99	23	30	7	40	2.00	.....	0.60	0	8	23	4	3	se.	J. Christiansen.
Orange	Adams		4	65.5	.....	100	23	40	7	39	3.12	.....	0.90	0	8	19	5	6	se.	J. E. Goforth.
Ranger	Billings										1.74	.....	0.51	0	6	.....	.....	.....	.....	R. E. Sheriff.
Ronda	Mercer																			H. A. Crandall.
Steele	Kidder	1,857	16	66.4	+ 3.7	97	23†	34	9	37	1.33	− 2.00	0.56	0	9	19	11	0	s.	H. S. Wood.
Turtle Lake	McLean		1	66.4	.....	100	23	32	7	39	1.94	.....	0.35	0	14	17	6	7	se.	E. G. Ranum.
Washburn	do	1,734	15	67.6	+ 3.5	97	23	36	7	37	2.61	− 0.52	0.71	0	8	8	19	3	e.	W. R. Peterson.
Williston	Williams	1,875	34	65.7	+ 2.2	94	23	42	6	34	2.08	− 1.49	1.00	0	10	8	16	6	se.	U. S. Weather Bureau.
South Dakota.																				
Aberdeen	Brown	1,300	23	69.7	+ 3.8	100	28	36	7	37	3.90	− 0.15	0.90	0	10	22	3	5	ne.	D. G. Gallett.
Academy	Charles Mix		14	73.6	+ 5.5	99	23	41	8	38	3.75	+ 0.13	1.95	0	6	23	5	2	s.	I. T. Lothrop.
Alexandria	Hanson	1,352	25	70.0	+ 2.2	96	16†	45	10	46	3.90	+ 0.27	1.54	0	4	28	2	0	se.	C. H. Stillwell.
Armour	Douglas	1,521	18	71.8	+ 3.8	101[c]	27	39[f]	7	40[f]	1.29	− 2.71	0.69	0	3	.....	.....	.....	.....	T. J. Markey.
Bellefourche	Butte	3,000	5	65.2	.....	96	23	43	7	40	3.05	.....	2.60	0	4	1	24	5	se.	U. S. Reclamation Service.
Blunt	Hughes	1,621									0.37	.....	0.25	0	2	8	19	3	se.	James A. Howard.
Britton	Marshall	1,354		68.8	.....	99	18	33	7	42	1.80	.....	0.75	0	9	18	10	2	s.	W. S. Given.
Brookings	Brookings	1,636	24	69.2	+ 4.3	94	15	38	7	46	1.96	− 1.77	0.62	0	8	19	10	1	se.	Experiment Station.
Bryant	Hamlin	1,846	1								3.17	.....	1.10	0	7	15	15	0	se.	E. D. Landon.
Camp Crook	Harding	3,000	20	65.6	+ 2.5	93	22†	41	1	43	1.75	− 0.92	0.65	0	9	14	12	4	se.	U. S. Forest Service.
Canton	Lincoln	1,248	18	70.0	+ 2.3	93	15	40	8†	30	4.57	− 0.19	1.63	0	6	28	2	0	se.	John H. Holsey.
Castlewood	Hamlin	1,685	8	67.7	.....	93	19†	36	10	35	1.97	.....	1.00	0	10	13	5	12	s.	M. N. Bradley.
Centerville	Turner	1,229	16	70.8	.....	97	17	42	10	39	5.36	+ 0.88	2.71	0	6	21	8	1	se.	Frank Williams.
Clark	Clark	1,779	21	68.0	+ 3.0	94	28	38	7	34	3.62	− 0.50	2.08	0	10	15	15	0	se.	O. H. La Craft.
Cottonwood	Stanley	2,414	5	72.6	.....	104	28	48	9	41	0.59	.....	0.51	0	3	11	14	5	se.	Experiment Station.
Custer	Custer	5,316	1								2.48	.....	0.75	0	9	14	15	1	sw.	R. P. Imes.
Daviston	Perkins		3	66.0	.....	92	27	39	7†	44	3.23	.....	1.08	0	6	6	19	5	se.	Dyson Byers.
Deadwood	Lawrence	4,535	4	63.2	.....	92	23	42	1	41	2.45	.....	1.00	0	4	17	9	4	.....	R. E. Grimshaw.
Deerfield	Pennington	6,000	4								4.21	.....	1.24	0	13	14	8	8	sw.	Frank E. Miller.
De Smet	Kingsbury	1,726	20	69.0	+ 3.2	94[a]	19†	39[a]	7	36[a]	2.14	− 1.37	0.68	0	5	9	21	0	s.	W. E. White.
Dowling	Stanley	2,250	4	69.6	.....	100	28	39	8	37	2.40	.....	1.95	0	3	19	10	1	se.	M. P. Dowling.
Dumont	Lawrence	6,195	4								3.64	.....	1.01	0	10	19	9	2	sw.	A. B. Wood.
Eagle Butte	Dewey	2,415	1	69.8	.....	102	28	44	7	40	0.80	.....	0.30	0	7	13	17	0	.....	Dr. John F. Chandler.
Eales	Potter		2								1.89	.....	0.82	0	10	20	8	2	se.	A. H. Peterson.
Elk Mountain	Custer	4,700	4								1.99	.....	0.43	0	8	11	11	8	se.	James E. Blaine.
Ellingson	Perkins		1	65.7	.....	98	23	42	6	40	4.75	.....	2.34	0	8	14	12	4	se.	Carl G. Moen.
Englewood	Lawrence	5,723	4																	W. P. Wagner.
Eureka	McPherson	1,884	4	68.9	.....	99	18†	33	7	43	2.91	.....	0.92	0	11	13	16	1	s.	Experiment Station.
Fairfax	Gregory		9	72.1	.....	98	27	40	7	40	1.75	.....	0.60	0	6	26	4	0	s.	U. G. Stevenson.
Faith	Meade	2,560	...	69.2	.....	101	23	41	6	44	1.35	.....	0.78	0	6	2	21	7	se.	Robert R. Saul.
Faulkton	Faulk	1,595	18	72.0	+ 6.6	101	27†	49	3†	39	0.89	− 2.26	0.32	0	9	23	5	2	se.	Miss Belle Talcott.
Flandreau	Moody	1,565	23	69.0	+ 3.6	94	17	40	7†	34	4.47	+ 0.30	1.50	0	7	16	10	4	s.	D. R. McLean.
Forestburg	Sanborn	1,231	21	73.8	+ 7.3	100	17†	41	10	37	1.62	− 2.19	0.65	0	7	24	5	1	se.	S. S. Judy.
Fort Meade	Meade	3,624	30	65.2	+ 0.6	91	24	42	8	35	2.08	− 1.51	1.00	0	7	16	6	8	se.	Post Hospital.
Frederick	Brown	1,371	4	69.4[f]	.....	99[f]	28	33[f]	7	50[f]	3.92	.....	0.75	0	12	.....	.....	.....	.....	J. E. Jeffers.
Goldfield	Meade	3,000	...	66.0	.....	96	23	38	11	44	2.50	.....	1.10	0	10	10	13	7	e.	A. M. Alexander.
Greenmont	Lawrence	6,430	4								2.70	.....	0.90	0	6	6	22	2	w.	H. C. Hoffbuhr.
Greenwood	Charles Mix		19	73.6	+ 3.9	99	14	42	7	40	3.58	− 0.15	1.53	0	5	24	6	0	s.	T. C. Williamson.
Hardingrove	Stanley		1	71.4	.....	104	28	36	10	48	0.58	.....	0.38	0	2	7	19	4	sw.	Mrs. Laura Sinclair.
Hardy Ranger Station	Lawrence	6,600	3								4.44	.....	1.12	0	10	3	19	8	se.	Mrs. Mary M. Schmidt.
Harveys Ranch	do	6,282	3								3.67	.....	1.15	0	10	12	12	6	w.	Jerome Harvey.
Hermosa	Custer	3,278	7	66.8	.....	95	23	44	7†	40	3.14	.....	1.48	0	11	15	8	7	n.	S. M. Booth.
Highmore	Hyde	1,890	20	71.0	+ 3.4	103	27	38	7	42	0.97	− 2.30	0.36	0	5	17	9	4	s.	Experiment Station.
Hopewell	Stanley		3	72.4	.....	106	28	44	7	42	0.22	.....	0.13	0	3	12	16	2	s.	E. R. Myers.
Hot Springs	Fall River	3,443	...	70.2	.....	95[a]	23†	46[a]	7	40[a]	2.00	.....	0.90	0	6	13	2	15	se.	John S. Goodrell.
Howard	Miner	1,564	21	69.1[a]	+ 4.1	95[a]	28	36[a]	7	43[a]	3.09	− 1.18	1.18	0	7	.....	.....	.....	se.	J. J. Cox.
Howell	Hand		11	69.6	+ 4.4	101	27	36	7	49	1.66	− 1.27	0.83	0	7	18	11	1	se.	M. A. Shuster, jr.
Huron	Beadle	1,306	31	70.6	+ 4.0	98	17	36	7	34	1.06	− 2.72	0.76	0	4	16	14	0	s.	U. S. Weather Bureau.
Ipswich	Edmunds	1,530	16	69.3	+ 4.4	100	18†	33	7	45	2.78	− 0.53	0.92	0	11	6	24	0	s.	H. J. Dailey.
Kadoka	Stanley	2,467	4			99[i]	22	45[i]	7	40[i]										Rev. D. S. Brown.
Kennebec	Lyman	1,689	20	72.9	+ 5.2	103[a]	28	42[b]	7	41[b]	0.94	− 2.09	0.55	0	3	22	6	2	se.	R. C. Van Horn.
Kimball	Brule	1,788	27	71.3	+ 4.1	98	17	38	7	37	3.09	− 0.17	1.43	0	7	26	3	1	se.	G. D. Rose.
La Delle	Spink	1,400	16	70.6	+ 4.3	99	18	44	8	37	3.95	− 0.80	1.65	0	8	15	11	4	se.	E. L. Ebbert.
Lead	Lawrence	5,200	4	63.2	.....	86	23†	40	7	30	2.30	.....	1.00	0	11	6	19	5	.....	E. F. Irwin.
Lemmon	Perkins	2,345	4																	J. C. Foot.
Marion	Turner	1,447	12	71.2	+ 4.4	95	15†	39	10	36	3.53	− 1.37	1.76	0	5	16	14	0	se.	M. H. Dains.
Marston	Sully		5	70.4	.....	105	27	44	7	47	0.79	.....	0.61	0	2	8	15	7	se.	J. W. Kozel.
Meadow	Perkins			65.2		96	23	42	6	36	3.65	.....	1.18	0	8	19	6	5	ne.	Hillard Wybenga.
Mellette	Spink	1,300	18	70.4	+ 4.4	102	28	36	7	35	1.83	− 1.43	0.80	0	7	25	5	0	se.	Frank A. Howe.
Menno	Hutchinson	1,325	16	70.8[c]	+ 3.1	98[c]	14	40[c]	9	40[c]	4.09	− 0.20	2.40	0	4	20	9	1	se.	J. S. Headley.
Milbank	Grant	1,148	22	70.0	+ 4.7	96	28	34	9	43	0.89	− 3.08	0.50	0	5	16	9	5	nw.	Miss Mary Patridge.
Mitchell	Davison	1,312	19	71.0	+ 4.0	97	17	40	7	36	1.92	− 2.21	1.00	0	4	19	11	0	s.	C. W. Downey.
Mobridge	Walworth		2	71.5	.....	102	28	41	9	37	3.74	.....	0.95	0	10	24	5	1	se.	Thomas J. Morris.
Murdo	Lyman	2,300	5	72.3	.....	102	28	45	7†	40	2.25	.....	1.50	0	3	24	5	1	s.	L. C. Bode.
Oelrichs	Fall River	3,339	21																	J. E. Strouse.
Onaka	Faulk	1,600	1								2.13	.....	0.59	0	10	22	8	0	.....	H. P. Camp.
Onida	Sully	1,921									0.55	.....	0.40	0	3	16	11	3	se.	E. E. Heywood.
Orman	Butte	2,920	7	68.0	.....	96	23†	45	7	41	3.66	.....	1.55	0	10	22	5	3	se.	U. S. Reclamation Service.
Ottumwa	Stanley		5																	J. W. Bretz.
Parkston	Hutchinson	1,400	1								2.16	.....	0.90	0	5	.....	.....	.....	.....	W. C. Rempfer.
Pearl Creek	Beadle										2.40	.....	1.20	0	6	.....	.....	.....	.....	Charles Minor.
Pierre	Hughes	1,572	21	73.4	+ 4.5	104	27	46	7	37	0.32	− 3.09	0.29	0	2	16	10	4	se.	U. S. Weather Bureau.
Pine Ridge	Shannon		7	69.2	.....	98	28	47	7†	43	1.60	.....	0.98	0	6	13	12	5	s.	W. A. Spencer.
Plankinton	Aurora	1,528	19								1.38	− 2.95	0.75	0	5	19	11	0	se.	W. G. Andrews.
Pollock	Campbell		7	69.5	.....	103	23	39	7	42	2.70	.....	0.76	0	10	8	14	8	se.	J. H. Jones.
Rapid City	Pennington	3,251	25	66.6	+ 2.7	94	23	46	7	36	3.50	− 0.09	2.05	0	12	12	10	8	se.	U. S. Weather Bureau.

TABLE 1.—*Climatological data for June, 1913. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.					Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
South Dakota—Contd.																				
Redfield	Spink	1,295	15	71.3	+ 6.1	103	23†	37	7	43	1.68	− 1.12	0.60	0	9	21	2	7		A. S. Hall.
Rochford	Pennington	5,228	3								3.15		1.10	0	8	13	11	6	s.	Mrs. M. E. Deffenbaugh.
Rosebud	Todd	2,600	19	70.4[e]	+ 3.5	100[e]	27	39[e]	7	39[e]	0.43	− 2.22	0.29	0	4	10	19	1	sw.	W. M. Ege.
Roslyn	Day		7	67.2		96	27†	36	7	36	1.28		0.77	0	7	17	13	0	s.	O. O. Floren.
Selby	Walworth		5	69.6		99	28	37	7	40	2.62		1.45	0	7	20	9	1	nw.	Miss Gertrude Hall.
Sioux Falls	Minnehaha	1,400	22	70.8	+ 2.8	96	17	40	8	41	5.14	+ 0.87	1.70	0	7	19	8	3	s.	J. H. Bechtold.
Sisseton	Roberts	1,202	7	66.8		96	28	36	10	41	2.45		0.90	0	7	21	5	4	sw.	George Gray.
Sorum	Perkins		2	64.8		97	23	42	3†	40	6.05		1.78	0	9	14	10	6	se.	M. S. Eberhart.
Spearfish	Lawrence	3,647	24	65.0	+ 1.5	93	23	40	7	32	2.73	− 1.40	1.12	0	8	14	12	4	se.	A. E. Johnson.
Stephan	Hyde	1,840	9	71.2		103	27	42	10	45	1.98		0.55	0	8	16	13	1	se.	Rev. A. Mattingly.
Tama	Meade		3			102	23				1.80		0.90	0	3	21	6	3	se.	E. J. Lehman.
Timber Lake	Dewey	2,163	1	70.9		104	23	44	7	42	3.18		1.14	0	9	2	26	2	se.	W. E. Prann.
Tyndall	Bonhomme	1,418	16	72.1	+ 3.2	93	15†	42	7†	39	2.97	− 0.27	0.93	0	7	18	12	0	se.	F. F. Chladek.
Vale	Butte	2,765	5	67.4		97	23	41	7	42	2.66		0.77	0	8	3	21	6	se.	U. S. Reclamation Service.
Vermilion	Clay	1,222	12	73.4	+ 4.5	99	15†	40	11	42	2.03	− 2.21	1.58	0	4	18	11	1	s.	Prof. E. C. Perisho.
Waters Ranch	Lawrence	4,000	3								1.18		0.39	0	8	12	10	8	e.	George Waters.
Watertown	Codington	1,735	19	69.0	+ 5.2	93	18†	38	10	37	4.30	+ 0.79	2.00	0	8	17	13	0	s.	Robert Q. Wood.
Wentworth	Lake		20	68.2	+ 3.0	92	15†	40[e]	7	35[n]	2.84	− 0.95	1.52	0	7	27	3	0	s.	R. C. Zimmerman.
Wessington Springs	Jerauld	1,410	13																	Mrs. N. J. Dunham.
White Lake	Aurora	1,646	4																	Mrs. G. A. Rogers.
Winner	Tripp	2,000	1	73.4[e]		104[e]	27	34[e]	3	50[e]	1.56		0.56	0	5	17	12	1	sw.	J. W. Barnum.
Wood	Mellette			73.4		106	27	39	7	44	0.49		0.23	0	5	21	5	4	se.	Fred E. Kirch.
Yankton	Yankton	1,234	39	71.9	+ 2.5	98	15	44	8	34	4.58	+ 0.31	2.24	0	8	12	17	1	s.	U. S. Weather Bureau.
Minnesota.																				
Pipestone	Pipestone	1,710	12	67.8	+ 3.1	92	15†	40	6†	32	4.64	+ 1.13	2.01	0	6	15	13	2	se.	A. L. Doan.
Colorado.																				
Arriba	Lincoln	5,243	7	64.8		93	26	38	8	39	1.57		0.89	0	8	16	11	3	s.	C. A. Creel.
Auldhurst	Teller	8,500	3								2.30		1.35	0	13	6	17	7	s.	Harry Dunmire.
Bennett (near)	Arapahoe	5,484	5								1.08		0.75	0	4	22	7	1	s.	J. F. Egelhoff.
Boulder	Boulder	5,347	17																	Prof. J. A. Hunter.
Burlington	Kit Carson	4,160	10	68.3	+ 0.9	100	26	40	8	42	2.39	− 0.39	0.75	0	12	9	18	3	se.	W. P. Davis.
Cassells	Park	8,445	3								2.31		0.74	0	10	19	7	4	e.	Harriet M. Cassell.
Castle Rock	Douglas	6,220	21																	Thos. P. Vaughan.
Cheesman	Jefferson	6,890	10	60.4	− 0.3	82	26†	41	3†	37	1.20	− 0.41	0.36	0	7	8	18	4	s.	J. G. Thornburg.
Cheyenne Wells	Cheyenne	4,279	21	68.4	+ 0.3	101	26	42	8	41	3.03	+ 0.23	1.00	1.0	9	24	3	3	se.	J. W. Adams.
Corona	Grand	11,660	6	42.2		60	27	25	11†	27	2.87		0.73		20				w.	U. S. Weather Bureau.
Denver	Denver	5,272	41	67.0	+ 0.6	95	27	46	13	39	1.10	− 0.37	0.76	0	7	9	18	3	sw.	Do.
Edgewater	Jefferson	5,450	5	63.3		91	27	40	13†	45	1.30		0.43	0	8	18	10	2		N. P. Levin, M. D.
Estes Pk. Fish Hatch.	Larimer	8,000	4								1.11		0.58	0	7	1	10	19	w.	G. H. Thomson.
Fort Collins	do	4,985	34	63.2	− 0.6	90	27	40	13	40	0.15	− 1.44	0.06	0	4	8	11	11	se.	Colorado Agr. College.
Fort Lupton	Weld	4,907	3								0.99		0.35	0	4	10	14	6	s.	C. B. Benedict.
Fort Morgan	Morgan	4,319	15	67.9	− 0.7	96	26†	42	8	52	1.12	− 0.50	0.74	0	4	23	6	1	se.	Great Western Sugar Co.
Frances	Boulder	9,300	8	54.4		74	15†	35	7†	31	1.36		0.42	0	16	1	28	1	w.	C. W. Barry.
Frys Ranch	Larimer	7,500	3	55.4		82	15	33	12	43	1.20		0.43	0	9	14	11	5	w.	Norman W. Fry.
Georgetown	Clear Creek	8,550	11								2.50	+ 1.34	0.51	0	16	2	21	7		H. L. Corbett.
Greeley	Weld	4,649	22	67.4	+ 1.1	95	27	43	13†	46	0.78	− 0.66	0.31	0	4	23	5	2	e.	Burton Reynolds.
Grover (near)	do	5,076	9	63.0		92	27	40	2†	43	1.31		0.71	0	8	4[e]	13[e]	10[e]	se.	D. M. Porter.
Hartsel	Park	8,892	4								2.80		1.14	0	10	5	8	17	nw.	Emily Kleinknecht.
Hawthorne	Boulder	6,000	4								0.29		0.09	0	7	16	12	2		B. E. Chesebro.
Holyoke (near)	Phillips	3,745	17	64.0	− 2.7	102	27	33	7†	63	1.11	− 1.64	0.32	0	7	14	11	5	se.	A. C. Cauble.
Idaho Springs	Clear Creek	7,543	13	58.2	0	84	27	37	8	36	1.75	+ 0.65	0.36	0	9	0	30	0	e.	J. J. Willis.
Julesburg	Sedgwick	3,465																		Great Western Sugar Co.
Kersey	Weld	4,571																		Do.
Laporte	Larimer	5,053	22								0.07	− 1.52	0.07	0	1					P. A. Taft.
Le Roy (near)	Logan	4,380	24								0.52	− 1.84	0.18	0	6	4	21	5	se.	Chas. Green.
Longmont	Boulder	4,950	12	65.8	+ 0.4	95	26	43	2	48	0.57	− 1.29	0.23	0	5	8	22	0	ne.	Great Western Sugar Co.
Longs Peak (near)	Larimer	8,600	18	51.1	+ 0.7	74	15†	29	1	37	2.28	+ 0.61	0.52	0	10	17	8	5	s.	Enos A. Mills.
Merino	Logan																			Great Western Sugar Co.
Moraine	Larimer	7,775	23																	Chas. A. Chapman.
Platte Canon	Jefferson	5,492	14								2.69	+ 0.66	1.16	0	7	11	18	1	sw.	Denver Union Water Co.
St. Cloud	Larimer	7,750	10																	Emma S. Cornelison.
Sedgwick	Sedgwick	3,539	5	67.6		98	26	40	8†	45	2.53		1.76	0	6	16	13	1	se.	Edwin Lewis, M. D.
Spicer (near)	Jackson	8,700	3	54.7		78	26†	30	12†	42	0.91		0.37	0	4	10	15	5		Frank W. Murphy.
Sterling	Logan	3,892	4	67.1		92	27	44	8	42	0.82		0.53	0	4	14	7	9	se.	Great Western Sugar Co.
Waterdale	Larimer	5,206	10																	P. H. Boothroyd.
Wray	Yuma	3,512	17	70.2	+ 1.2	104	27	40	9	37	2.40	− 0.76	0.70	0	6	5	19	6	s.	J. C. Tuomey.
Yuma	do	4,138	22								1.45	− 1.39	1.03	0	5	16	10	4	se.	Matthew Harr.
Nebraska.																				
Ainsworth	Brown	2,521	8	71.2		96	15†	47	8†	36	2.48		1.50	0	7				s.	John M. Cotton.
Albion	Boone	1,747	18	70.0[d]	+ 1.6	98	24†	39	10	40[d]	4.51	+ 0.45	1.46	0	11				s.	F. M. Weitzel.
Alliance	Boxbutte	3,968	22	65.2	− 0.9	94	27	42	8	44	1.25	− 1.51	0.45	0	6	12	15	3		J. A. Keegan.
Alma	Harlan	1,939	18	73.1	+ 1.7	100	15†	47	8	39	4.19	+ 0.76	2.18	0	8	13	14	3	s.	W. A. Sharpnack.
Arcadia	Valley	2,186	14								3.50	− 0.33	1.55	0	9	15	10	5	sw.	J. L. Owen.
Arden	Wheeler		2								1.76		0.93	0	8	27	2	1	s.	A. E. Johns.
Ashland	Saunders	1,100	28	73.5	+ 1.7	98	15	45	8†	33	2.31	− 2.24	0.65	0	9	23	6	1	s.	Dr. A. S. Mansfelde.
Ashton	Sherman	2,061	21								3.78	− 0.13	1.00	0	8	21	3	6	s.	F. Rein.
Atkinson	Holt	2,108	8	70.8		100	15	40	7†	42	1.41		0.47	0	4					C. J. Wilson.
Auburn	Nemaha	1,051	22	72.6	+ 1.5	98	15	45	10	36	1.40	− 3.05	0.48	0	6	23	5	2	s.	J. R. Huffman.
Aurora	Hamilton	1,892	19			99	15				2.96	− 1.27	0.95	0	6	18	8	4	se.	A. D. Travis.
Beatrice	Gage	1,235	24	73.2	+ 1.6	100	15	42	9	33	3.81	− 0.51	1.80	0	5	20	6	4	s.	H. E. Palmer.
Beaver City	Furnas	2,147	22	73.7	+ 2.3	102	26	46	8	38	2.62	− 1.08	1.08	0	7	17	11	2	se.	T. M. Davis.
Bellevue	Sarpy	1,210	33	72.3	+ 0.7	94	14†	44	8	31	4.24	+ 0.12	1.88	0	10	23	6	1	se.	A. A. Tyler.
Benkelman	Dundy	2,968																		R. D. Druliner.
Bertrand	Phelps	2,515	5								2.48		1.35	0	8	19	8	3	se.	W. F. Dobbin.
Blair	Washington	1,122	18	72.6	+ 2.8	97	15	39	8†	39	3.49	− 1.03	1.23	0	10	21	7	2	sw.	D. C. Van Deusen.
Blake	Garfield		1								5.09		1.88	0	6	21	8	1	s.	H. C. Mead.
Bloomfield	Knox		5	72.2		100	15	41	8	37	2.11		1.30	0	6	14	15	1	s.	Dr. L. C. Bleick.
Bradshaw	York	1,715	16								4.69	− 0.85	1.52	0	9	18	12	0		E. C. Roggy.
Brewster	Blaine		1								3.23		0.72	0	11	15	13	2	se.	W. S. Turnbull.
Bridgeport	Morrill	3,658	17	67.3[e]	+ 1.6	97	27	41	14†	51[e]	1.59	− 0.92	0.40	0	7	10	17	3	se.	R. H. Willis.

TABLE 1.—*Climatological data for June, 1913. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Nebraska—Continued.																				
Broken Bow	Custer	2,477	19	70.8	+ 1.7	100	25	38	7	39	3.32	− 0.97	1.24	0	8	24	3	3	se.	R. V. McCall.
Bruning	Thayer	1,583	2								3.44		1.48	0	7	15	13	2	sw.	Henry Middendorf.
Burge	Cherry	2,674																		H. A. Davis.
Burwell	Garfield	2,180	20								4.03	− 0.39	1.00	0	7					W. L. McMullen.
Butte	Boyd		8	72.4		98	27	39	9	42	1.74		0.91	0	5	15	14	1	s.	W. Whitla.
Cairo	Hall	1,951	4								3.58		0.92	0	8					Elliott Harrison.
Callaway	Custer	2,555	20	71.4	+ 3.2	102	26	40	8	40	2.27	− 1.36	0.90	0	6	14	11	5	s.	J. H. Evans.
Cambridge	Furnas	2,258	6	72.8		105	26	41	8	44	2.15		0.80	0	8	18	5	7	s.	Chas. Jensen.
Columbus	Platte	1,442	20	71.1	+ 1.8	99	15	40	10	45	5.74	+ 1.58	2.00	0	10	20	6	4	sw.	A. L. Rush.
Crete	Saline	1,368	30	72.8	+ 2.1	97	15	41	10	36	3.47	− 0.97	2.30	0	8	22	4	4	s.	Doane College.
Culbertson	Hitchcock	2,565	26	74.0	+ 2.4	101	26	48	7†	32	3.18	− 0.08	1.32	0	11	16	7	7	se.	Homer L. Nye.
Curly	Sioux																			A. E. Hann.
Curtis	Frontier	2,553	17	71.7	+ 1.4	97	27	42	8	34	4.96	+ 0.54	1.10	0	10	17	8	5	s.	Dr. S. R. Razee.
Dalton	Cheyenne	4,273																		J. C. Frandsen.
David City	Butler	1,619	24	71.3	+ 2.1	95	15†	44	8	33	5.35	+ 1.11	1.71	0	10	18	10	2	se.	S. Clingman.
Du Bois	Pawnee	1,074	8								2.43		1.30	0	7	19	4	7	s.	O. M. Backus.
Dumas	Garfield		5	69.4		100	15	37	9	40	6.21		2.87	0	9	28	2	0	s.	Emile Raes.
Elm Creek	Buffalo	2,268	6								5.38		2.50	0	5					E. L. Sutton.
Elsie	Perkins	3,382	5								3.74		1.86	0	10					J. F. Brittain.
Ericson (near)	Garfield	2,029	20								3.98	+ 0.19	1.82	0	5	17	12	1	sw.	J. A. Bodyfield.
Ewing	Holt	1,888	21	73.3		107	15	41	9	47	2.35	− 1.05	1.09	0	7					G. H. Benson.
Exeter	Fillmore	1,607	2								2.51		0.98	0	5					Frank Ainsworth.
Fairbury	Jefferson	1,316	38	73.6	+ 2.1	98	15†	40	10	38	5.36	+ 0.70	2.57	0	6	16	13	1	s.	W. F. Cramb.
Fairmont	Fillmore	1,641	20	71.7	+ 2.0	98	15†	39	10	36	2.09	− 2.14	0.45	0	10	17	8	5	s.	C., B. & Q. R. R. Co.
Falls City	Richardson	898	18	74.8	+ 2.6	100	15	43	10	37	2.57	− 1.78	1.06	0	5	21	8	1	se.	Dr. J. C. Yutzy.
Fort Robinson	Dawes	3,764	30	66.6	+ 1.4	94	23†	41	30	43	0.73	− 2.05	0.30	0	5	17	7	6	s.	Post surgeon.
Franklin	Franklin	1,820	21	73.0	+ 2.0	102	26	46	2†	42	2.03	− 1.68	0.71	0	7	12	13	5	se.	A. R. Peck.
Fremont	Dodge	1,203	33	71.8	+ 1.5	98	15	40	8†	35	6.11	+ 1.01	1.97	0	9	16	13	1	se.	Ernest Hahn.
Fullerton	Nance	1,629	12	70.3		98	15	41	10	41	7.03	+ 2.03	2.23	0	9	23	6	1	s.	Dr. F. W. Johnson.
Geneva	Fillmore	1,633	23	73.0	+ 1.7	98	15	41	10	42	2.99	− 2.03	1.85	0	10	18	9	3	se.	F. M. Flory.
Genoa	Nance	1,584	38	71.2	+ 1.3	95	15†	42	9	35	6.50	+ 2.21	1.59	0	10	21	6	3	se.	F. W. Parsons.
Gordon	Sheridan	3,550																		G. F. Williams.
Gosper	Gosper		12								2.51	− 0.61	0.84	0	6	18	8	4	s.	E. H. Stoll.
Gothenburg	Dawson	2,557	19	71.7	+ 2.4	100	26	41	8	40	3.58	− 0.61	1.00	0	8	16	9	5	s.	Dr. W. J. Bartholomew.
Grand Island	Hall	1,860	23	73.2	+ 2.0	101	16	45	10	34	3.88	− 0.75	1.02	0	9	14	9	7	s.	E. A. Barnes.
Grant	Perkins	3,405	10	69.7		102	27	38	8	47	1.67	− 1.71	0.70	0	5				se.	Anson K. Holmes.
Greeley	Greeley	2,021	18	70.8		97	15	43	10	33	4.00	+ 0.02	1.12	0	10	22	6	2	se.	W. E. Morgan.
Guide Rock	Webster	1,646	13								3.18	− 0.69	1.20	0	6	8	13	9	s.	J. S. Marsh.
Haigler	Dundy	3,258	16								1.31	− 1.77	0.61	0	3					J. L. Pember.
Halsey	Thomas	2,695	11	71.4	+ 3.4	101	27	40	7†	43	1.13	− 1.99	0.80	0	6	24	6	0	se.	Bureau of Forestry.
Hartington	Cedar	1,309	22	71.6	+ 3.6	100	15	42	10	35	3.09	− 1.14	1.48	0	7	16	11	3	sw.	D. E. Ewing.
Harvard	Clay	1,812																		Bert Gregg.
Hastings	Adams	1,932	23	72.0	+ 1.6	101	26	41	10	38	2.49	− 1.72	0.70	0	10	22	5	3	sw.	C. B. & Q. R. R. Co.
Hayes Center	Hayes		20	70.8		102	26	42	8†	42*	2.30	− 1.14	0.80	0	10	22	4	4	se.	Jos. M. Crosby.
Hay Springs	Sheridan	3,821	26	67.2	+ 3.3	98	28	42	8	38	1.85	− 1.17	0.84	0	7	2	27	1	se.	A. Kedlecek.
Hebron	Thayer	1,458	27	73.2	+ 1.8	97	26	43	10	35	3.02	− 1.67	1.08	0	6					Dr. C. M. Easton.
Hemingford	Boxbutte	4,256	4								0.68		0.23	0	8					A. S. Enyeart.
Hendley	Furnas	2,231	8								1.59		0.66	0	6					T. L. Jones.
Hershey	Lincoln	2,902	2								4.04		1.40	0	7	20	2	8		G. F. Palmer.
Hillside	Arthur	3,484	4	68.6		101	27	38	7	40	1.82		0.72	0	9	17	10	3	se.	Mrs. M. R. Lloyd.
Holdrege	Phelps	2,324	21	72.3	+ 0.6	101	26	45	8	34	2.63	− 1.16	1.05	0	6	10	12	8	s.	C. B. & Q. R. R. Co.
Hooper	Dodge	1,228	16	73.2	+ 2.8	98	15	45	7†	34	8.20	+ 2.52	2.93	0	7	14	4	12	se.	Dr. W. H. Heine.
Hull (near)	Banner		2								1.46		0.40	0	9	18	2	10	se.	Mrs. W. P. Miller.
Imperial	Chase	3,278	24	69.8	+ 0.9	103	27	40	7†	41	2.00	− 1.28	0.64	0	7	8	12	10	se.	Robt. Malcolm.
Kearney	Buffalo	2,146	25	73.6	+ 2.4	103	26	44	9	39	3.05	− 0.83	1.12	0	5	16	13	1	s.	City engineer.
Kimball	Kimball	4,697	25	66.3	+ 1.0	96	27	40	8	44	0.62	− 1.65	0.19	0	5	9	18	3	se.	F. J. Bellows.
Kirkwood	Rock		18	72.1	+ 4.6	101	27	39	7	45	0.93	− 2.95	0.35	0	5	24	5	1	s.	Mrs. C. Arter.
Kowanda	Garden		5								2.02		0.66	0	7					Geo. W. Hulse.
Lexington	Dawson	2,385	24	71.8	+ 3.5	104	26	44	7†	37	4.44	+ 0.80	2.12	0	9	23	0	7	se.	Robt. Chadwick.
Lincoln	Lancaster	1,189	33	74.0	+ 2.4	99	26	43	10	34	2.27	− 2.05	1.07	0	10	13	12	5	s.	U. S. Weather Bureau.
Lodgepole	Cheyenne	3,820	16	68.8	+ 3.2	102	27	37	8	46	1.04	− 1.33	0.34	0	7	9	15	6	e.	R. T. Kidney.
Loup City	Sherman	2,067	18	71.2	+ 2.5	101	26	42	8†	39	3.64	− 1.41	1.15	0	9	28	2	0	se.	Harriet Hayhurst.
Lynch	Boyd		18								1.97	− 1.93	1.20	0	4					Anton Basta.
McCool Junction	York	1,575	18								1.43	− 2.52	0.41	0	7					L. L. Slagel.
Madison	Madison	1,585	20	71.2	+ 3.0	97	26	42	8†	36	2.21	− 1.77	0.60	0	6	22	6	2	se.	Dr. F. A. Long.
Marquette	Hamilton	1,830	34								3.07	− 1.12	1.06	0	10					John Ellis.
Mary	Brown		2								2.70		0.85	0	7	24	5	1	sw.	G. C. Stufft.
Mason City	Custer	2,257	12								2.03	− 1.64	0.66	0	6					J. A. Amsberry.
Minatare	Scotts Bluff	3,825	4								2.83		2.00	0	6	21	8	1	se.	A. Kennedy.
Minden	Kearney	2,169	36	73.3	+ 3.2	103	26	45	8†	38	2.11	− 2.63	1.04	0	6	13	16	1	s.	Joel Hull.
Mitchell	Scotts Bluff	3,950	5	65.6		94	28	42	4†	43	1.28		0.38	0	10	9	16	5	se.	U. S. Reclamation Service.
Nebraska City	Otoe	941	37	73.8	+ 2.9	96	15	42	11	35	3.70	− 1.12	1.85	0	4	19	9	2	s.	C. B. & Q. R. R. Co.
Nelson	Nuckolls	1,683	2	72.6		101	26	38	10	45	1.47		0.50	0	5	21	3	6	s.	Mack I. Koser.
Norfolk	Madison	1,532	29	72.6	+ 4.2	102	26	43	8†	38	3.03	− 1.44	0.90	0	8	24	5	1	s.	Dr. P. H. Salter.
North Loup	Valley	1,961	25	71.7	+ 2.2	99	15	42	10	37	5.22	+ 0.75	1.41	0	8	20	9	1	s.	W. G. Rood.
North Platte	Lincoln	2,841	39	70.6	+ 2.2	99	27	43	8	40	2.13	− 1.12	1.06	0	8	15	11	4	s.	U. S. Weather Bureau.
Oakdale	Antelope	1,722	27	70.4	+ 1.8	97	15	39	8†	36	3.70	− 0.64	1.19	0	9	16	12	2	s.	G. S. Clingman.
Omaha	Douglas	1,103	43	74.4	+ 2.8	96	15	46	8	28	2.28	− 2.77	1.08	0	12	15	9	6	s.	U. S. Weather Bureau.
O'Neill	Holt	1,975	15								1.52	− 2.57	0.83	0	3	23	4	3	sw.	L. E. Best.
Ord	Valley	2,062	18								3.01	− 1.08	1.48	0	6	18	9	3	s.	Jas. Milford.
Orleans	Harlan	1,993	6								3.67		2.05	0	6					Jas. McGeachin.
Osceola	Polk	1,644	16	73.4		100	26	42	10	37	3.92	− 0.29	1.01	0	9	23	5	2	se.	G. T. Ray.
Oshkosh	Garden	3,393	1	69.5°		100°	27	42°	14	45°	1.69		0.73	0	6	14	13	3	se.	Robert Quelle.
Palisade	Hitchcock		5								1.43		0.75	0	4					E. E. Young.
Pawnee City	Pawnee	1,175	17	72.4	+ 1.0	98	15	41	10†	36	2.68	− 1.98	1.05	0	6	24	3	3	s.	F. A. Barton.
Paxton	Keith	3,060	6	70.3		101	27	43	7†	44	1.65		0.68	0	5	20	6	4	s.	C. F. Coy.
Plymouth	Jefferson	1,419	9	71.9		95	26	41	10	35	2.60		1.00	0	4	17	10	3	s.	Dora Ruppel.
Purdum	Blaine		13	68.8‡	+ 1.9	97°	15	39‡	9	43‡	2.38	− 0.36	0.70	0	6	19	9	2	se.	T. C. Jackson.
Ravenna	Buffalo	2,028	36	71.4	+ 2.3	102	26	40	8†	41	3.17	− 0.62	1.59	0	9	18	9	3	s.	H. G. Smith.
Red Cloud	Webster	1,687	22	74.1	+ 1.8	101	26	45	10	42	2.44	− 2.14	0.86	0	9	20	4	6	sw.	Chas. S. Ludlow.
St. Libory	Howard	1,887	18								4.44	+ 0.12	0.96	0	8	18	11	1	s.	W. I. Meader.
St. Paul	do	1,796	19	72.7	+ 2.2	99	26	43	8†	37	4.49	− 0.40	1.04	0	8	20	9	1	sw.	Paul Anderson.
Santee	Knox		26	74.7	+ 3.6	104	15	42	8	42	5.68	+ 1.52	2.49	0	7	20	9	1	s.	A. M. MacGregor.
Schuyler	Colfax	1,357	20	72.4		98	15	42	8†	38	7.43	+ 2.89	2.80	0	8	24	5	1	s.	R. O. Brownell.
Scottsbluff	Scotts Bluff	3,888	25	68.0	+ 1.7	96	27†	44	8	45	2.39	− 0.28	0.66	0	13	14	13	3	se.	A. B. McCoskey

TABLE 1.—*Climatological data for June, 1913. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Nebraska—Continued.																				
Seward	Seward	1,435	23	72.2	+ 0.2	97	26	43	10	39	2.08	− 2.30	0.78	0	8	18	6	6	.....	C. B. & Q. R. R. Co.
Sidney	Cheyenne	4,090	21	.....	.....	.....	.....	.....	.....	.....	1.89	− 0.01	1.23	0	8	20	8	2	se.	John P. Fischer.
Springfield	Sarpy	1,052	2	.....	.....	.....	.....	.....	.....	.....	3.83	.....	2.32	0	8	20	5	5	se	L. A. Bates.
Springview	Keyapaha	.....	22	73.8	+ 6.4	100	17†	41	7	40	1.72	− 1.73	1.00	0	5	19	8	3	s.	C. L. Phelps.
Stanton	Stanton	1,472	23	70.4	+ 1.5	95	15†	41	7†	41	4.93	+ 0.75	1.42	0	7	20	9	1	se.	Alfred Pont.
Stapleton	Logan	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. E. Peterson.
Stratton	Hitchcock	2,804	18	.....	.....	.....	.....	.....	.....	.....	1.57	− 1.60	0.61	0	4	.....	.....	.....	.....	Miss Stella Vennum.
Superior	Nuckolls	1,574	29	.....	.....	.....	.....	.....	.....	.....	2.39	− 1.78	0.87	0	5	.....	.....	.....	.....	F. V. Bishop.
Syracuse	Otoe	1,059	22	72.7	+ 1.5	97	15	41	10	45	6.20	+ 2.17	2.51	0	8	21	6	3	se.	W. N. Hunter.
Table Rock	Pawnee	1,023	25	.....	.....	.....	.....	.....	.....	.....	1.80	− 3.20	0.66	0	9	18	11	1	s.	E. D. Howe.
Tecumseh	Johnson	1,113	36	.....	.....	.....	.....	.....	.....	.....	1.91	− 2.95	0.66	0	5	13	12	5	.....	L. E. Pratt.
Tekamah	Burt	1,060	23	71.6	+ 1.3	96	15	43	8	37	3.42	− 2.13	0.95	0	8	22	3	5	se.	Dr. A. D. Nesbit.
University Farm	Lancaster	.....	29	73.6	+ 2.4	98	26	40	11	37	2.57	− 1.78	1.14	0	10	16	13	1	.....	S. W. Perin.
Valentine	Cherry	2,613	25	70.9	+ 3.8	101	27	44	7	41	1.03	− 2.78	0.40	0	7	22	6	2	s.	U. S. Weather Bureau.
Wahoo	Saunders	1,187	11	.....	.....	.....	.....	.....	.....	.....	2.50	− 1.61	0.75	0	7	18	12	0	.....	W. T. Mauck.
Wakefield	Dixon	1,387	19	71.4	+ 3.2	99	15	37	10	39	1.07	− 3.36	0.42	0	7	22	6	2	s.	I. H. Weaver.
Walthill	Thurston	.....	10	71.4	.....	96	15	42	8†	35	1.87	− 1.62	0.88	0	7	18	9	3	s.	G. A. Dudley.
Watertown	Buffalo	2,299	8	.....	.....	.....	.....	.....	.....	.....	3.06	.....	1.10	0	7	18	12	0	s.	R. E. Swift.
Wauneta	Chase	2,935	15	.....	.....	.....	.....	.....	.....	.....	2.55	− 1.00	0.75	0	6	.....	.....	.....	.....	C. D. Fuller.
Weeping Water	Cass	1,080	36	73.0	.....	99	25	40	11	41	5.42	+ 0.57	3.15	0	11	22	1	7	s.	S. W. Orton.
Westpoint	Cuming	1,313	28	73.0	+ 2.8	97	15	43	10	35	2.56	− 2.62	0.92	0	5	23	5	2	s.	J. C. Elliott.
Wisner	....do	1,380	17	.....	.....	.....	.....	.....	.....	.....	3.09	− 1.64	1.06	0	8	28	1	1	.....	F. C. Evans.
York	York	1,633	25	73.3	+ 0.9	100	15	40	10	40	3.19	− 0.84	1.76	0	7	21	7	2	sw.	A. T. Glauque.
Iowa.																				
Afton	Union	1,212	19	.....	.....	.....	.....	41	8†	.....	3.89	− 0.27	1.75	0	7	20	7	3	sw.	N. W. Rowell.
Allerton	Wayne	.....	11	72.3	+ 4.2	96	16†	39	8†	35	4.52	− 0.17	3.03	0	7	18	9	3	sw.	Maude Chase.
Alton	Sioux	1,305	8	70.0	.....	98	15	35	10	47	2.09	.....	0.45	0	8	18	12	0	se.	W. S. Slagle.
Atlantic	Cass	1,164	22	72.2	+ 3.1	96	15†	40	8	36	3.10	− 2.31	1.63	0	8	15	5	10	sw.	Thos. H. Whitney.
Audubon	Audubon	1,301	19	70.5	+ 2.4	94	15†	40	9†	35	1.97	− 1.88	0.59	0	6	20	5	5	sw.	Geo. E. Kellogg.
Bedford	Taylor	.....	13	71.4	+ 3.1	96	17	37	11	41	3.10	− 1.37	1.58	0	8	18	8	4	s.	E. E. Healy.
Centerville	Appanoose	1,013	3	73.2	.....	96	18	39	8	34	5.71	.....	3.36	0	6	20	6	4	s.	Gordon Peacock, jr.
Chariton	Lucas	1,042	18	70.4	+ 1.2	94	15†	37	7†	35	3.63	− 1.09	2.20	0	3	15	12	3	s.	C. C. Burr.
Clarinda	Page	1,009	23	72.1	+ 1.1	99	15	41	9†	50	4.09	− 0.81	1.66	0	6	.....	.....	.....	s.	A. S. Van Sandt.
Corning	Adams	1,117	21	72.2	+ 2.7	96	17	41	9†	34	3.07	− 0.98	1.49	0	7	17	11	2	sw.	Jerome Smith.
Corydon	Wayne	1,101	20	72.6	+ 2.7	97	16†	39	8†	37	3.64	− 1.01	2.83	0	7	15	9	6	sw.	May C. Miller.
Council Bluffs	Pottawattamie	990	3	73.4	.....	98	14	42	9	38	5.01	.....	1.91	0	10	12	8	10	se.	B. W. Crossley.
Creston	Union	1,312	8	70.6	.....	94	15†	40	8†	33	4.44	.....	1.96	0	7	18	8	4	sw.	O. J. Colby.
Cumberland	Cass	.....	14	.....	.....	.....	.....	.....	.....	.....	4.12	− 0.56	1.60	0	6	27	1	2	sw.	J. H. Reppert.
Denison	Crawford	1,180	19	70.4	+ 2.6	95	15	37	8	33	1.61	− 1.81	0.70	0	7	21	8	1	s.	W. C. Van Ness.
Elliott	Montgomery	.....	8	72.2	.....	94	16	40	10	33	6.65	.....	2.29	0	5	18	11	1	s.	C. H. Westrope.
Greenfield	Adair	.....	21	71.8	+ 1.9	97	15†	40	8†	34	4.58	− 0.64	2.00	0	6	16	14	0	sw.	Frank A. Ward.
Harlan	Shelby	1,182	14	69.8	+ 1.3	93	15	40	8	35	1.65	− 2.97	0.48	0	6	17	9	4	sw.	C. A. Reynolds.
Inwood	Lyon	1,474	9	71.2	.....	95	15	42	8†	33	3.76	.....	1.69	0	7	26	1	3	s.	F. B. Hanson.
Lake Park	Dickinson	1,479	....	69.0	.....	95	17	37	10	37	2.25	.....	1.40	0	2	24	4	2	s.	A. E. Woodruff.
Lamoni	Decatur	1,120	6	72.6	.....	95	17†	40	10	35	3.63	.....	2.50	0	7	21	0	9	se.	T. J. Fitzpatrick.
Le Mars	Plymouth	1,224	17	71.1	+ 2.8	93	28	41	8	32	1.18	− 2.98	0.55	0	8	21	7	2	se.	G. A. C. Clarke.
Lenox	Taylor	1,250	18	71.6	+ 2.3	93	17†	41	9	32	3.74	− 0.53	1.08	0	6	23	5	2	s.	J. L. Hurley.
Leon	Decatur	1,120	11	73.0	+ 4.2	96	18	39	8	38	4.30	− 0.48	2.40	0	6	16	8	6	sw.	Morris Gardner.
Little Sioux	Harrison	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. H. Gibson.
Logan	....do	928	46	72.6	+ 2.7	95	15	45	9†	34	2.11	− 3.32	0.79	0	5	18	11	1	sw.	Glenn H. Stern.
Mount Ayr	Ringgold	1,236	20	73.4	+ 3.4	98	17†	40	9†	34	4.73	+ 0.01	2.25	0	9	18	8	4	s.	Alex. Maxwell.
Murray	Clarke	1,216	22	71.6	+ 1.9	96	17	39	10	36	4.95	+ 0.90	2.04	0	7	15	10	5	sw.	M. T. Ashley.
Northboro	Page	1,046	1	72.6	.....	95	15†	43	9†	33	3.01	.....	1.56	0	7	18	7	5	sw.	J. M. Darby.
Odebolt	Sac	1,356	16	72.4	+ 2.9	98	17	39	9	36	1.91	− 2.11	0.75	0	7	26	3	1	.....	E. Starner.
Onawa	Monona	1,051	13	74.8	+ 4.8	100	15	43	10	36	2.75	− 2.25	0.82	0	9	26	3	1	se.	C. G. Perkins.
Pacific Junction	Mills	960	14	72.8	+ 3.1	100	15	42	8†	40	4.48	+ 0.02	1.27	0	9	21	9	0	s.	H. H. McCartney.
Rock Rapids	Lyon	1,358	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. C. Wyckoff.
Sheldon	O'Brien	1,422	13	.....	.....	.....	.....	.....	.....	.....	3.55	− 0.97	1.75	0	6	.....	.....	.....	sw.	Geo. Aupperle.
Sibley	Osceola	1,212	20	69.6	+ 3.6	96	17	39	8†	36	3.42	− 1.10	1.57	0	7	22	4	4	s.	H. G. Doolittle.
Sioux Center	Sioux	.....	14	70.0	+ 3.2	94	15	39	8	33	2.89	− 1.84	1.15	0	7	25	4	1	s.	J. de Ruyter.
Sioux City	Woodbury	1,135	24	72.3	+ 2.9	96	15	44	8	31	0.75	− 3.13	0.44	0	8	21	6	3	s.	U. S. Weather Bureau.
Spencer	Clay	.....	3	70.2	.....	97	17	40	9	42	1.60	.....	0.57	0	7	.....	.....	.....	sw.	S. Gillespie.
Thurman	Fremont	.....	16	74.2	+ 3.2	99	15	45	9†	38	4.36	− 1.89	1.55	0	9	10	16	4	sw.	C. R. Paul.
Washta	Cherokee	1,157	15	69.6	+ 3.0	95	28	35	10	37	1.78	− 2.54	0.90	0	5	23	6	1	s.	H. L. Felter.
Kansas.																				
Abilene	Dickinson	1,157	18	.....	.....	.....	.....	.....	.....	.....	0.94	− 3.72	0.80	0	2	15	7	8	s.	T. W. Sherman.
Agricultural College	Riley	1,100	55	75.0	+ 1.0	99	27	45	11	37	1.55	− 2.98	0.75	0	3	16	8	6	s.	Prof. J. O. Hamilton.
Alton	Osborne	1,651	11	75.1	.....	103	26	50	8†	35	2.21	− 1.83	0.54	0	8	17	7	6	s.	H. A. Storer.
Atchison	Atchison	973	22	71.9m	− 1.0	97m	15	46m	10	36m	2.65	− 1.79	1.65	0	4	13m	0m	4m	se.	Prof. E. M. Stahl.
Belott	Mitchell	1,383	18	74.9	.....	101	26	48	10	32	4.43	− 0.36	2.30	0	7	10	15	5	s.	F. A. Slack.
Blakeman	Rawlins	2,894	16	70.6	+ 1.8	103	26	37	8	47	1.82	− 1.13	0.58	0	7	18	6	6	se.	C. L. Henderson.
Blue Rapids	Marshall	1,105	7	.....	.....	.....	.....	.....	.....	.....	2.57	.....	0.67	0	8	19	4	7	s.	M. Norton.
Centralia	Nemaha	1,256	4	73.5	.....	98	27	42	10	34	1.41	.....	0.55	0	7	14	11	5	sw.	N. S. Hazen.
Chapman	Dickinson	1,113	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. F. Halbert.
Clay Center	Clay	1,203	12	75.6	+ 3.0	102	26†	45	8	36	2.18	− 2.96	0.78	0	6	12	2	16	s.	O. L. Slade.
Colby	Thomas	3,138	22	69.3	− 1.0	98	26	44	8	40	2.85	− 0.33	1.12	0	11	11	15	4	sw.	G. H. Kinkel.
Concordia	Cloud	1,398	29	75.2	+ 2.5	99	26	47	10	30	2.76	− 2.21	1.44	0	6	6	15	9	s.	U. S. Weather Bureau.
Densmore	Norton	2,200	4	70.2	.....	103	26	41	10	45	2.88	.....	0.75	0	6	15	3	12	se.	Miss Irene Vaughn.
Dresden	Decatur	2,731	19	72.3	+ 2.0	101	26	44	8	40	2.20	− 0.74	0.90	0	5	15	3	12	se.	Jacob Bock.
Ellsworth	Ellsworth	1,537	9	76.6	.....	102	26	48	8	35	1.16	.....	0.82	0	6	15	13	2	s.	Geo. Seitz.
Emmett	Pottawatomie	1,024	1	.....	.....	.....	.....	.....	.....	.....	1.59	.....	0.98	0	3	21	8	1	s.	Frank Zina.
Eskridge	Wabaunsee	1,412	7	73.4	.....	95	27	45	8†	31	2.00	.....	1.00	0	5	20	7	3	s.	Geo. D. West.
Farnsworth	Lane	2,850	12	72.1	+ 0.8	100	25†	46	9	44	3.21	+ 0.15	1.38	0	8	23	2	5	s.	C. M. Jennison.
Fort Scott	Bourbon	857	38	76.4	+ 2.9	100	27†	45	10	35	1.33	− 5.09	1.05	0	5	20	0	10	sw.	E. A. Shaver.
Frankfort	Marshall	1,146	19	75.4	+ 3.7	102	15	41	10	38	2.14	− 2.93	0.96	0	6	14	14	2	sw.	W. W. Watson.
Garnett	Anderson	950	7	75.9	.....	98	28	46	10	33	4.07	.....	1.55	0	8	11	16	3	s.	D. D. Judy.
Goodland	Sherman	3,687	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. C. Calvert.
Hanover	Washington	1,225	16	74.4	+ 2.0	99	15†	44	10	34	1.88	− 2.78	0.61	0	7	22	1	7	s.	A. Jaedicke, jr.
Harrison	Jewell	1,804	12	73.8	+ 3.6	101	26	46	10	34	2.62	− 1.27	0.76	0	8	21	8	1	s.	Mahlon Tegley.
Hays	Ellis	2,000	45	72.8	+ 1.2	100	25†	48	8†	36	3.53	+ 0.32	1.41	0	9	12	9	9	sw.	G. K. Helder.
Hill City	Graham	2,134	5	73.2	.....	104	26	48	7†	49	1.93	.....	0.77	0	5	13	13	4	s.	C. A. G. Inlow.
Holton	Jackson	1,043	2	72.8	.....	99	15	42	10	36	2.45	.....	0.78	0	7	13	14	3	s.	Miss Thamar Richey.

TABLE 1.—*Climatological data for June, 1913. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Kansas—Continued.																			
Horton	Brown	1,188	24	72.8	+ 0.6	97	15	44	10	31	3.31	− 1.31	0.89	0	8	15	11	4	s.	Mrs. S. C. Belden.
Hoxie	Sheridan	2,700	14	72.4	+ 0.9	101	26	42	8	40	2.71	− 0.42	0.81	0	8	7	19	4	se.	I. L. Vinson.
Lawrence	Douglas	997	45	73.0	− 0.5	96	27	40	9	39	7.58	+ 2.82	5.00	0	5	13	12	5	sw.	R. K. Young.
Leavenworth	Leavenworth	913	69	75.5	+ 2.1	98	28	46	10	49	1.66	− 3.36	0.95	0	5	18	2	10	s.	Dr. A. F Yohe.
Lebanon	Smith	1,812	15	75.0	+ 3.7	100	26	46	10	35	3.12	− 0.88	1.98	0	5	21	2	7	s.	E. V. Bower.
Lenora	Norton	2,300									2.45		0.79	0	7					J. S. Goodrich.
Leoti	Wichita	3,300	10	70.6		102	26	45	9	45	1.94		0.54	0	9	11	13	6	se.	L. E. Gorsuch.
Lincoln	Lincoln	1,374	1	76.1		101	25†	47	8†	32	1.51		0.47	0	8	13	7	10	s.	R. W. Greene.
Lindsborg	McPherson	1,333	7								1.87		1.17	0	5	16	6	8	s.	A. J. Fredrickson.
McCracken	Rush	2,139	1	73.6		101	25	48	8	36	1.82		0.55	0	6	8	16	6	s.	E. D. Floyd.
Migneapolis	Ottawa	1,259	23	74.5	+ 1.2	99	26	47	8†	34	2.87	− 1.30	1.83	0	6	17	3	10	s.	J. L. Steele.
Moran	Allen	1,098	17	76.2	+ 2.6	100	27	46	8†	36	1.96	− 3.00	0.75	0	6	15	12	3	sw.	C. J. Norton.
Natoma	Osborne	1,834	4																	C. O. Hunt.
Norton	Norton	2,284	15	72.8	+ 1.7	102	26	46	7†	44	4.86	+ 0.56	2.55	0	7	15	15	0	se.	Sim Sleffel.
Oberlin	Decatur	2,539	26	73.2		103	26	38	8	42	1.49	− 1.64	0.47	0	8	22	4	4	se.	I. K. Huber.
Oketo	Marshall	1,194	5	74.6		98	15†	46	10	43	2.36		0.61	0	8	7	21	2	se.	J. A. Church.
Olathe	Johnson	1,032	18	75.2	+ 2.3	99	28	44	10	38	1.90	− 2.57	0.67	0	5	14	9	7	s.	Dr. S. B. S. Wilson.
Oskaloosa	Jefferson	991									2.22		0.86	0	5					Ralph Snyder.
Ottawa	Franklin	926	19	75.2	+ 2.4	96	27	46	8	32	2.20	− 3.63	1.03	0	5	19	6	5	s.	W. J. Sheldon.
Phillipsburg	Phillips	1,939	22	74.6	+ 2.7	104	26	49	7	41	3.27	− 0.96	1.09	0	9	15	14	1	s.	N. E. Bailey.
Plainville	Rooks	2,156	7								1.76		0.45	0	9	18	9	3	se.	P. D. Spellman.
Pleasanton	Linn	862	11	75.8	+ 2.8	99	27	43	10	37	2.40	− 3.57	0.80	0	8	16	11	3	sw.	B. F. Blaker.
Quenemo	Osage	941	1								2.55		1.11	0	6	16	11	3	sw.	R. L. Graham.
Republic	Republic	1,495	10	73.4		101	26	44	10	36	2.59		1.33	0	6					J. W. Ambrose.
Russell	Russell	1,834	14	74.6	+ 1.8	100	24	47	8	34	4.62	+ 0.42	2.90	0	7	11	6	13	s.	Robert Brebner.
Russell Springs	Logan		3																	Murray Wallace.
St. Francis	Cheyenne	3,288	5	70.7		102	26	43	7	46	2.66		0.97	0	11	11	16	3	s.	J. E. Uplinger.
Salina	Saline	1,227	29	75.8	+ 2.0	103	25	48	8	38	1.79	− 2.72	0.94	0	6	16	9	5	s.	Prof. A. W. Jones.
Scott	Scott	2,971	7	73.2		103	25	47	9	46	1.54		0.95	0	5	21	5	4	s.	J. B. Loughran.
Smith Center	Smith	1,800	3	74.6		102	26	48	10	39	4.06		1.60	0	7	13	10	7	se.	W. H. Nelson.
Topeka	Shawnee	997	27	74.4	+ 0.9	96	27	47	8	33	3.38	− 1.43	1.38	0	7	14	12	4	s.	U. S. Weather Bureau.
Tribune	Greeley	3,612	14	70.4		101	26	45	9	43	3.97	+ 1.32	1.05	0	11	14	7	9	s.	Charles E. Cassel.
Valley Falls	Jefferson	913	14	72.8	− 0.1	97	27†	42	10	36	1.16	− 3.21	0.60	0	7	16	10	4	sw.	Miss Nettie Maxwell.
Vinland	Douglas	880	4								2.29		1.08	0	5					A. Schick.
Wakeeney	Trego	2,456	30	73.6	+ 2.2	100	25†	48	9	38	5.08	+ 1.75	4.00	0	6	19	4	7	s.	A. S. Peacock.
Wallace	Wallace	3,303	43	71.0	+ 1.2	102	26	44	8†	46	1.10	− 1.46	0.32	0	6	13	12	5	s.	J. L. Page.
Wamego	Pottawatomie	1,002	20	75.4		97	26†	46	10	31	3.14	− 1.74	1.00	0	8	13	11	6	sw.	M. L. Stone.
Missouri.																				
Amoret	Bates	850	5	75.2		98	27†	45	10	37	2.82		0.89	0	7	15	7	8	sw.	Darby Fruit Farm.
Appleton City	St. Clair	853	23	75.6	+ 1.2	100	30	42	10	39	0.84	− 5.09	0.69	0	3	10	20	0	sw.	Robert Brown.
Arlington	Phelps	695	23								2.69	− 1.94	0.85	0	6	23	1	6	s.	G. V. Randolph.
Arthur	Vernon	767	21	76.8	+ 4.1	99	27	44	10	43	1.66	− 4.53	0.61	0	5	13	15	2	sw.	J. T. Armstrong.
Avalon	Livingston		27	74.4	+ 2.0	97	17†	42	10	36	2.30	− 2.76	0.80	0	6	24	3	3	sw.	F. G. Ashbaugh.
Bagnell	Miller	594	19								1.50	− 3.58	1.00	0	2	20	7	3	e.	C. O. Brockman.
Bethany	Harrison	881	23	72.0	0	97	16	45	8	33	6.39	+ 2.10	2.81	0	5	26	4	0	se.	W. H. Skinner.
Bolivar	Polk	1,070	26	76.4	+ 4.0	103	30	42	11	39	3.07	− 2.49	1.48	0	6	19	9	2	s.	A. C. Fink.
Boonville	Cooper	600	38								2.21	− 3.74	0.66	0	8	21	0	9	sw.	C. Randecker.
Brunswick	Chariton	652	33	74.8	+ 1.6	96	29	45	11	34	1.58	− 4.11	1.11	0	3	15	7	8	e.	Louis Benecke.
Clinton	Henry	800	27	76.4		102	28†	42	10	50	1.57	− 3.39	1.05	0	2	19	9	2	sw.	A. E. Derwent, M. D.
Columbia	Boone	784	24	76.0	+ 1.5	98	18	43	11	37	2.40	− 1.98	1.45	0	9	12	9	9	s.	U. S. Weather Bureau.
Conception	Nodaway	982	30	73.0	+ 2.3	96	15	43	8†	32	1.56	− 3.20	0.89	0	7	12	13	5	s.	Fr. Adhelm Hess.
Crocker	Pulaski	1,300	2	75.4		99	16†	45	11†	39	2.56		1.86	0	3	18[b]	9[b]	1[b]	s.	Ira H. Stephens.
Eldon	Miller	934	2	76.9		100	17	42	10	37	2.52		1.52	0	6	9	20	1	s.	Charles A. Kellogg.
Fayette	Howard	725	31	75.8	+ 2.6	98	18	44	11	36	2.06	− 2.85	0.61	0	7	21	4	5		Prof. T. B. Smith.
Fulton	Callaway	818	22	77.8[b]	+ 6.2	102	18	45	9	40	2.48	− 2.41	0.70	0	5	18	6	6	w.	Russell Johnston.
Glasgow	Howard	618	36								4.60	− 0.07	1.62	0	6	25	0	5	s.	J. J. Shaughnessy.
Grant City	Worth	1,130	22	73.4	+ 3.1	100	15	42	10	36	4.87	+ 0.61	2.72	0	5	22	5	3	s.	W. H. Campbell.
Harrisonville	Cass	912	42	75.0	+ 1.8	98	27†	44	9	39	2.63	− 2.13	1.10	0	5	12	2	16	sw.	A. J. Sharp.
Hazelhurst	Livingston		21								3.33	− 0.64	1.22	0	8					W. H. Baker.
Hermann	Gasconade	482	40								1.62	− 3.05	0.56	0	7	17	8	5	s.	C. T. Maushund.
Houston	Texas	1,280	21	72.8	+ 0.6	97	1†	36	11	42	3.23	− 1.78	1.65	0	5	8	20	2	s.	E. Dempsey.
Jefferson City	Cole	628	32	76.6	+ 2.6	104	18	41	11	45	2.17	− 2.15	1.47	0	6	25[a]	0[a]	4[a]	s.	Miss Emma Swift.
Kansas City	Jackson	963	25	75.8	+ 2.8	95	28	48	8	26	2.81	− 1.85	1.85	0	6	11	15	4	s.	U. S. Weather Bureau.
Kidder	Caldwell	1,017	21	73.6	+ 1.4	95	28	43	10	30	3.20	− 1.25	0.86	0	8	20	5	5	sw.	J. F. Sharp.
Lamonte	Pettis	863	25	75.6		100	27	35	10	41	2.00	− 2.80	0.80	0	6	4	25	1	sw.	J. Ed. Hall.
Lebanon	Laclede	1,265	25	74.5	− 0.5	95	21	45	9†	31	4.47	− 1.04	1.90	0	7	20	7	3	s.	M. W. Serl.
Lexington	Lafayette	813	32	76.2	+ 4.0	98	18†	44	10	37	1.87	− 3.20	0.76	0	5	20	0	10	s.	J. W. Keithley.
Liberty	Clay	864	25	76.0	+ 2.7	100	28	47	10	35	0.37	− 4.84	0.16	0	3	12[b]	12[b]	4[b]	s.	W. C. Wilmott.
Lockwood	Dade	1,088	18	75.6		97	28	45	11	32	0.63	− 4.19	0.28	0	3	17	10	3	sw.	C. S. Crow.
Marshall	Saline	779																		Prof. W. H. Black.
Maryville	Nodaway	1,160	24	73.2	+ 2.4	98	15†	41	10	38	2.80	− 2.21	1.60	0	7	20[a]	1[a]	8[a]	s.	J. R. Brink.
Mount Vernon	Lawrence	1,480	35	74.9	+ 1.6	98	30	43	12	38	2.85	− 2.47	1.40	0	7	14	14	2	sw.	J. R. White & Son.
Nevada	Vernon	860	20								2.14	− 3.34	0.98	0	8	17	11	2	sw.	C. Jewell.
Oregon	Holt	1,113	58	74.1	+ 1.8	94	15	45	9	28	2.16	− 2.74	0.80	0	7	18	6	6	s.	Tom Curry.
Osceola	St. Clair	738	14								1.97	− 2.88	1.40	0	5	21[a]	3[a]	5[a]	sw.	W. E. Matthews.
Pattonsburg	Daviess		4								3.28		1.13	0	7	20	0	10	sw.	Garrie Burton.
Rolla	Phelps	1,139	33	78.0	+ 6.1	99	18	41	9	36	2.75	− 1.54	1.50	0	4					Prof. P. J. Wilkins.
St. Charles	St. Charles	614	36	77.2	+ 3.6	104	18	46	11	37	2.97	− 1.23	1.64	0	5	19	8	3	s.	L. C. Saeger.
St. Joseph	Buchanan	967		75.2		96	15	46	9	29	1.24	− 3.85	0.41	0	10	15	10	5	s.	U. S. Weather Bureau.
St. Louis (1)	St. Louis City	567	43	78.4	+ 3.3	99	29	47	9	27	1.55	− 2.92	0.90	0	5	14	12	4	s.	Do.
St. Louis (2)	do	578		78.1		99	18†	48	9	28	3.23		1.56	0	5	19	7	4	w.	St. Louis University.
Sublett	Adair	1,000	33	73.5	+ 1.7	98	15†	40	8†	39	3.65	− 1.08	1.20	0	5	15	10	5	sw.	Lewis Spriggs.
Tarkio	Atchison		2	73.4		97	15	43	9†	34	3.49		1.61	0	6	19	5	6	s.	Prof. M. H. Rees.
Trenton	Grundy	812	19	73.8	+ 1.7	94	29	45	9†	35	3.99	+ 0.06	1.76	0	10	20	4	6	s.	W. H. Estes.
Unionville	Putnam	1,072	21	71.1	− 1.1	95	17	39	10	34	4.18	0	2.20	0	7	15	8	7	s.	Geo. W. Davis.
Warrensburg	Johnson	883	35	76.8	+ 3.0	98	17†	44	10	32	1.26	− 3.72	0.79	0	6	19	7	4	sw.	A. F. Smithson.
Warrenton	Warren	865	24	77.6	+ 4.3	103	17	43	9†	37	2.08	− 2.45	0.98	0	5	16	7	7	s.	Prof. J. H. Frick.
Warsaw	Benton	700	10	76.2	+ 2.6	102	27	38	11	51	1.65	− 3.63	0.54	0	6	13	16	1	sw.	J. R. Smith, M. D.
Wheatland	Hickory	920	21								1.54	− 3.65	0.58	0	6	12	16	2	s.	Mrs. S. A. Jackson

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
‡ All temperature normals for Montana used in this table have been reduced to the 33-year period.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for June, 1913. District No. 6, Missouri Valley.*

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Wyoming.																																
Arapahoe	Bighorn		.60				.17	.16		.32		.04	.37	T.										.03		T.			T.	T.		1.69
Basin	do																						.52									0.52
Big Creek Station	North Platte											.28								.05	T.				.05	.12			.21			0.71
Boyd	Cheyenne					.07		.48						.27					T.	T.	1.01	T.				.21		.13		.54	.03	2.74
Burns	South Platte																															
Casper	North Platte																															
Centennial	do					.25	.25		.10	.01		.02		T.					.50		.30	T.	T.		.04	.03	.04		.12	.03		1.69
Cheyenne	South Platte		.07	T.		T.	.28	T.				.11	T.	T.	T.				T.		.02			.21	.09	.01	T.		.14	.25		1.18
Chugwater	North Platte							1.74					T.	.03					T.					T.		.90						2.67
Clark	Yellowstone		T.		.28	.10	.09	T.		T.	T.	.27			T.		T.	T.			.11			.14	.09	T.	.17	.18	.29	.07	T.	1.79
Cody	Bighorn					.04	.11		T.			.50		.03		.08		.01						.14	.03		.26	.21	.21	.04		1.74
Crandall Creek	Yellowstone		.12		T.	.02	.33	.03	.07		.07	.51	.23	.02	.06				.07	T.				.05	.11	T.	.26	.01	.30	.05	.07	2.38
Dome Lake	Tongue					.21	.89	.01	.52			.20	.10	T.	T.	.05		.13	.14						.04	T.	.76	.12	.28	.10		3.55
Douglas	North Platte	.06	.16				.25					.02	.14	.05							T.					.02	.13					0.83
Dubois	Bighorn		.20	.07			.05	T.	.11	.04	T.	.05			.03			.06						.13		.05	.30	.45	.40	T.		1.94
Eatons Ranch	Tongue						.65												.46	.30				T.	T.	.05			.41		T.	1.87
Echeta	Powder					.10	.32												.16								T.		.65			1.23
Elk Mountain	North Platte	.03					.16			.03		.04	.01									.17			.10	.36	.11	.25				1.26
Encampment	do		T.			T.		T.	T.	.06		.02						.10	.03		.14	T.			.10	.35	.15		T.			0.95
Ervay	Powder	T.	.35	T.		.05	.54				.13	.18		.16		T.					.16					.02	.10			.35		2.04
Fort Laramie	North Platte																															
Foxpark	do						.50			T.			.30										20						.35			1.35
Germania	Bighorn				.08		.02			.62		.02				.01		.01			T.			.10	.06	.01		.06	.10	.13		1.22
Gillette	Powder																															
Horse Creek	Bighorn	.02	.06	T.		T.	.09	.08	.16	.04	.08	.75	.02						.08					.30		T.		.37	.75	.47	.19	3.78
Hunters Station	Powder	.31	.68	.04	.07	.27	.22	.10	.81			.27						.19	.39	.07	.09						.94					4.45
Hyattville	Bighorn								.09			.04			.06											.03			.02			0.24
Jireh	Niobrara		.53				.09					.16	.01	.20	.02		T.			T.	.56		T.	T.		.16	.02	.14	.57			2.46
Kinnear	Bighorn								T.		.02	.22						T.						T.			T.	.16	.06			0.46
Kirtley	Niobrara						.32				.01			.76										.01		.09	.37	.02	.12			1.70
Kirwin	Bighorn		.01	T.	T.	.20	.20	.20	.01	.02	.01	.50	T.	.20	.20	.01				T.			T.	.11	.33	.05	.50	.60	.70	.01	.20	4.06
Knowles	Cheyenne		.21				.22	.20					.15				T.		.73	T.							.23		1.44	.21		3.39
Lagrange	North Platte					.02	.48	.10				.03	.32	.22				.02	.36	.03	T.	.05	.06			.08	.15			.02		1.94
Lander	Bighorn		T.	.05		.27	T.	.10	.30	.13	.07	.02	T.					.02	T.					.04		T.	T.		T.		T.	1.00
Laramie	North Platte		.05	.02		.06							.30						.15		.52				.05	.02			.33	.20		1.70
Leo	do																															
Lolabama Ranch	Yellowstone		.05						.10											.10	.05				.10	.20	.10	.05		.05		0.80
Lovell	Bighorn																															
Lusk	Niobrara		.22			28													.25		.38		.60			.20			.25			2.18
Manville	do		.33				.09						.21	.16							1.10					.22		.12	.10	.39		2.72
Moorcroft	Cheyenne				.02	.13		.43						.18							.10						.09	.36	.02	.10	T.	1.43
Moore	North Platte		.02				.05					.04	.25	.05	T.	T.		T.	T.	T.	.06								.18	.14		0.79
Newcastle	Cheyenne				T.	T.	T.	.35					.17	.52							.27	T.					.17	T.	.09	.34	T.	1.91
Pathfinder	North Platte			T.			.12	.21			.02	.20	.12	.01							T.	.01		T.	T.	.16	.43	T.	T.	T.		1.28
Pinebluff	South Platte			.06	T.	T.	.34				.30			.91				T.	T.	.18				.12	.08	.04	T.			T.		2.03
Pine Ridge	Cheyenne			.25			.50						.45							1.67	T.						.10	.35	.37	.21		3.90
Powell	Bighorn									.10		.05		.30							.02				.54	.25	.10	.06	.08	.15		1.65
Rawlins	North Platte						.02	.56		.04	.49	.11						T.	T.		T.			T.		.34	.39		T.	.02	T.	1.97
Rock River	do			.01			T.			T.		.01	.02	T.	T.											.09	.03		T.	.06		0.22
Rockypoint	Powder						.20						.03	.04			1.15				T.					.05	.10		.26	.36		2.19
Saratoga	North Platte									.15											.90	.20				.75	.12			.03		2.15
Seven Mile Creek	do					1.89				.15		.29	.03						.09		.10	.01	.01		.01	.04	.08		.12	.02		2.84
Sheridan	Tongue	T.	T.		.03	.32	.31			T.			T.			.54		.36	.68		.01				.02	.70	.52		.25	.08	.02	3.90
Shoshone Dam	Bighorn			T.	T.	.03	.16	T.	T.			.97															.41	.25	.31	.02		2.15
South Pass City	North Platte	T.					T.	.37	T.	.02	.03	.22	.18					T.	.07					1.	T.	.05	.13	.02	.06	.02		1.17
Sundance	Cheyenne				.30			.50						.15					.10	.20							.15		.10	.25		1.75
Thermopolis	Bighorn			.03		.01	.08	.29			.10	.12									.15						.01		.03	.27		1.09
Ulm	Tongue		.02			.72					.01								.06		.03	.01			T.	..	.72		1.00	.17	.01	2.75
Upton	Cheyenne				T.	T.				.25		T.	T.							.60	.80	T.					.60	T.	T.	.38		2.63
Verona	Tongue					.25	.25												.25							.70			.64		.12	2.21
Wheatland	North Platte		T.		T.		.10	.10				.10	.15													T.	.15		.57			1.35
Wiants Ranch	do						T.	.67	T.	T.	.28	.04	.06			T.	.06							T.	.40	.47	.04		.08			2.10
Woodrock	Tongue		18		.02		.50		.10	T.	.05	.47	.05		.02	.05		.04	.06	.02		.07		T.	.14		.37	.09	.05	.48		2.76
Worland	Bighorn	.12			T.		.02	.75			T.	.34							.05		.02	.04					T.		.21	.11	T.	1.66
Wyncote	North Platte		.16	.66	T.	.04	.59	.42					T.	.47										T.	.06	.16	.10						2.66
Yellowstone Park	Yellowstone		T.		.02	.11	T.		T	T.	T.	.79		.02	.07	T.	T.	.02	.10	T.					.11	.07	.03	.26	.14	.11	.21	.03	2.09
Fountain	Madison			.01		.01						.70								.03					.07	.07	.03	.05	.70	.50	.20	.20	2.57
Gallatin	Gallatin		T.	T.	T.	T.	T.			T.	T.	T.	T.		T.												.10		.20	.20	.15	T.	0.65
Grand Canyon	Yellowstone	T.	.05	T.		T.	.05	T.	T.			T.														.10	.50	.10	.10	.20	.10	.10	2.40
Lake Yellowstone	do					.08						.09														.15	.15	.09	.07	.05	.16	.21	.02	1.07
Norris	Madison		.04		.01		.02				.01	T.				.02			.20	.10					.04	.05	.50	.50	.60	.30	.20	.20	2.79
Riverside	do								.04	.01		.03	1.05		.10				.06	.05					.06	.11	.06	.16	.14	.20	.26	.04	2.37
Soda Butte	Yellowstone					T.			.62	.21	.36	.17	.83													.30	.20	T.	.57	.41	.42	.31	T.	4.40
Sylvan Pass	Bighorn		T.	T.	.15	T.	T.	.16	.36	T.		1.47			.35												.45	.20	.46	.18	.62	.27	.16	4.83
Thumb	Yellowstone																															
Tower Falls	do		.22		.08					T.	T.	.58	.01		.13	.01			.11	.14					.04	.05		.21	.20	.12	.32	.02	2.24
Upper Geyser Basin	Madison											.50		.20						.01					.18	.04	.16	.20	.25	.22	.18	.15	2.09
Montana.																																
Absarokee	Yellowstone				.03		.12	T.				.24				T.			.99	.08			.06	.08		.02	.25	.01	.12		.08	2.08
Adel	Missouri							.15	T.		T.	1.50	.25	.10	.35	T.	.20	.21			.31					.35	.26	.06		.08	T.	3.82
Agricultural College	Gallatin				.02	.03	T.		.17	T.	.06	*	.94	.19	.17		.20	.15	T.	T.				.16	.43	.24	.09	.19		.13	.02	3.19
Augusta	Missouri							T.	T.		.31	.08	.42	T.				T.		.42						.42	1.00	1.04		T.	.14	3.83
Babb	St. Marys																															
Bald Butte	Missouri						.05	.30	.58	.11	.31	.52	.28	.47	.11	.07	.38	.40	.35					T.		.54	.60	.53			T.	5.60
Bigtimber	Yellowstone											.37								.13					.80	.10	.20		.75			2.35
Billings	do				.01	.01	T.					T.						.50	.01		.20				26	.50	.05	.13	.22	.26			2.15
Blackleaf	Missouri								T.			.21	T.					.02	*	.32				.19		.58	.25	1.95	T.	T.	T.		3.52
Boulder Nursery	Jefferson					.03		.04		.38		1.84	1.13	.21			T.	.04	.09	.18	.16			.08	.14	.28	.20	.14	.26		.11		5.31
Bowen	do							.02		.36	.50	.24	1.27	.02				.15						.43	.07	.08	.60	.19	.08		.17		4.18
Box Elder	Milk		.13										.73	.07	.13		T.	.09	.04		.51	.02			.03	.01	.04	.14	.10	.30	.02		2.36
Bridger	Yellowstone																															
Broadview	do				T.							.19	.17					.18	.48		.46				.42	.58	.16	.04	.49	.17			3.34
Browning	Marias																			.20			.50			.30		.80	.30	.10			2.20
Busby	Yellowstone				.01		.23						T.		.26					.03				.38		.26	.01	.84	.54			2.56
Busteed	do				.17	.21	.11				.26	.40	.02						.20	.12		T.		T.	.21	.25	.21	.01	.19	.30			2.66
Canyon Ferry	Missouri										.24		1.48		.13	T.		T.	.26		.10			.11		.47	.10	.22		.05	.03		3.19
Cascade	do							.06	.11	.02	.01		1.25	.17	.19	T.	.21	.01	.08		.32		.01	T.		.20	.36	.52	T.	.22			3.74
Chessman Reservoir	do				.04		T.		.10		.13		1.80	T.	.11		.36	.05	.45	.20	.06			.04		.54	.53	.27			.32		5.00
Chester	Marias																.13	.04		.75				.04			.20	1.00		.80	.02		2.98

TABLE 2.—*Daily precipitation for June, 1913. District No. 6*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total.
Montana—Contd.																																
Chinook	Milk		.16									.11	.39	.14	.03		T.		T.		1.16			T.	.29	.01		.10		.50	.01	2.90
Clearcreek	do																															
Clydepark	Yellowstone				T.	T.			T.	T.	T.	.90		.16	.16	T.	.10	.03	T.	T.	.02			.09	.33	.42	.05	.05		.48	.37	3.16
Conrad	Marias			T.					.04	.06			T.	.11	T.			T.			.08	.50		T.	.08	T.	T.	T.	.63	.06	.05	1.61
Copper	Missouri									T.	T.	.12	1.07	.32	T.	T.	.22	T.	.03	T.	.22	T.	.15	.10		.80	.40			.05	.05	3.53
Crow Agency	Big Horn					.49									T.				.06					.12	.43	.10	.02		.09	.33	.01	1.65
Culbertson	Missouri	.05	.05		.05								.02		.65				.30	.10	.33				.10	T.	.15	.15	.60	.25	.02	2.82
Cut Bank	Marias								T.	.20	.07									T.	.52	T.		.15	T.	.20	.15	1.11		.18	T.	2.58
Denton	Missouri			.32	T.		T.				.10	T.	1.30	.19	.29		.06	.85		T.	.17		.27	T.	.10	.12	.07			.39		4.23
Dillon	Jefferson	.11	.02	.07	T.	.12	T.	.03	T.	T.	.18	.87	.08	.01	.04	.02	.22	.02	1.02	.03		.02	.01	.11	.98	1.03	.81	.02	.01	.12	.07	6.02
Dry Wolf Camp	Missouri																															
Dunkirk	Marias							.28					.19							.47		.07		.03	.14			.58		.28		2.04
Ekalaka	L. Missouri			.47		.55										.02	.33					.40			.05	.08	.06		.05	.23		2.24
Fallon	Yellowstone				.18										13		.03	.48	.05	.68				.65		.16		.13	.20	.24		2.93
Findon	Missouri				.45				T.	.31	.02	.96	.05	.36	T.	.54	.94	.19	.70	.45		.12	.08	.07	.33	.38	.11			.06	.01	6.13
Flathead Creek	Yellowstone					.04	.44				.75	1.40		.64	.27	.18	.01	.16	.09	.34			.50	.32	.22	.35	.12			.60	.01	6.44
Flatwillow	Missouri																															
Forsyth	Yellowstone				.35		.10						.04											.40		.35	.04	.60	.55	.25	.09	2.77
Fort Benton	Missouri																															
Fort Shaw	do								.19	T.		.09	.39		.22		.04		.05		.53				.02	.36	.13	.50	.24	.25		3.01
Foster	Big Horn				.03		.34							.05				.32	.15					.10	.42	.47	.01	.08	T.	.35	.02	2.34
Garneill	Missouri				.25	.20					.10	1.10	.20	.25	1.05	.60		.60	.10		.15	.25	.10	.85	.55	.35			.15	1.30	.15	8.30
Geyser	do		.02								.08		1.44		.20	.02	.02	1.18	.10		.97	.10	.09		.10	.32	.17	.10		.01	.05	4.97
Glasgow	Milk											T.	.20		T.	.07	.36	.68	.03		.40	.03		.02	.20		.02	.11	.07	.14	T.	2.33
Glendive	Yellowstone														.10	.18		.10	.05		.88			.15			.12	T.	.05	.60		2.23
Goldbutte	Marias							.31	.03	.10			T.				.30				.45	.04		.09	.16		.36	.03	T.	.28	.04	2.19
Graham	Powder		.25				.34	.04					.06		T.	1.06	.08		.48						.09	.08	.03			.35		2.86
Great Falls	Missouri							T.	.01	.19	.05	.74	.07	.07	T.	.02	T.	.54		.27		T.	.03	.05	.41	.17	.18			.14		2.94
Harlowton	do						.04			.20	.95		.10				.01	.13	.15		.35	.28	.06	.10	.55	.04			.30		3.26
Havre	Milk		.02	.13						.06		.27	.01	T.			.05		.05	.58	.01			.02		.19	.02		.06	.01	1.48
Hebgen Dam	Madison				.08	T.	.28		.02	.01	.25	.76	T.	.02		.08		T.				T.	.33	.36	.07	.76	.15	.25	.34	.14	3.90
Helena	Missouri				T.		T.	.22	.12		.21	.26	.72	.08	.08	.01	.02	.09	.08	.02	.02			.03	.06	.21	.34	.04	.02	.01	..	2.64
Highwood	do				.05						.08	.20	1.20		T.	.10	.15	T.			.75		.1	.15	.10	.50	.20	.01		.55		4.18
Huntley	Yellowstone				.13		.05					.20						.42	.04						.38	.23	.10	.10	.19	.12		1.96
Jordan	Missouri																															
Knobles Ranch	Milk									.26	.04	.14			T.				T.	*	.70	.32	T.	.36	.09	*	.49	.89	.05	.12		3.46
Lewistown	Missouri			.27								1.20	1.64	T.	.10	.24	.17	.02	T.	T.	.12		.10	T.	.93	.07	.20	.08	T.	1.07	.12	6.33
Lonetree	do						.11								.26		.12	.11	.27		.46					.25	.07	.16		.24		2.05
Lothair	Marias		T.									T.			T.	.95			.65	.40					.50	.30		.25	.85		3.90
Lytle	Missouri								T.	T.	.11		.50	.03	.04		.02	.11		.23		T.	T.	.10		.09	.15	.24	.03	.12		1.77
Malta	Milk			.10							.14	.25					.02		.42		.03		.30	.04	.09			.05		1.00		2.44
Medicine Lake	Missouri		.05												.20		.10	.05			.17		.11	.15	.23		.10	.90	.18	.03		2.27
Meistone	do				1.10	.05							.40	.55				.40	.05	T.			.07		.14	.82	.16	.10	.08	.50		4.42
Mildred	Yellowstone			T.	.41										T.			.02	.19		1.37			.23		.11	.17	.85	.15	.12		3.62
Miles City	do			.02	.33		T.							T.	.10	.02	.08	.04	.32		.39			.30	.20	.14	.01	.95	.27	.15		3.32
Norris	Madison				.23			.11		.18		.74	.13		.09		.25	.02		.02	.17			.53	.43	.74	.60	.45	.01	.60	.42	5.72
Olsen Creek	Jefferson																															
Pinegrove	Missouri					.05					.10	.85					.30							.50	.50	.30	.30		.30	.34	.25	3.79
Pipestone Pass	Jefferson				.02	.15	.21	.09	.05	T.	.78	.37			.03	T.	T.	.37					.09	.17	.11	.10	.72		.17		.49	3.92
Plevna	Yellowstone			.04	.24	.32					T.				.12		.38	.47	.04		.35				.42	.09	T.		T.	.10		2.57
Poplar	Missouri	T.											T.		.43	T.	.08	.10	.20		.23				.10			.65	.30	.25	.08	2.42
Red Lodge	Yellowstone				T.	.49	.67					.37				.02	.20		.09						.17	.06	.15			.37	T.	.09	2.68
Renova	Jefferson				T.			T.	.57	.01	T.	.30	.38	.07	.02		.18		.10	.13	.05			.20	.15	.15	.63	.05		.36	.08	3.43
Ryegate	Missouri											1.06		.01		.25		.12			.12				.30	.75	.20	.05	.20	1.10		4.16
Savage	Yellowstone												T.		.02		.10		.23		.52			.13		.04	.08	T.	1.10			2.22
Shelby	Marias								.37				.28				.10	T.		.65				.01	T.	.01	.15	.52	.04	.23	.10	2.46
Sidney	Yellowstone												.18		.08			.37			.34				.03	T.	T.		.30	.17		1.47
Springbrook	Missouri	T.		T.		.33									.01			.32	.30	T.	1.10	.10			.20	.11	.10	.43	.20	.18	.01	3.39
Sunlit Farm	Milk												.57						.40		1.51		.11	.24	.03		.04		.10		3.00
Sun River Canyon	Missouri									.20	.60	.20	.20					.10		.20					.60	1.20	.30	.20	.40			4.20
Three Forks	Madison				.02	.10		.20	.19	.12		.45	.58	.03	.26	.17	.14				.12			.18	.05	.31	.18	.05		.16	.06	3.37
Utica	Missouri				.03						.03		1.33		.12	.53		.02	.03		.43		.37		.46	.28	.75	.08	.05	.13		4.64
Valentine	do												1.62		.26		.10	.11		T.			.84	.10	.35	T.		.15	.06	1.10		4.69
Valier	Marias		T.						.28	.13			T.	T.	T.		.25	.09		1.45			T.	.03		.19	.13	1.26	.02	.15		3.98
Wall Rock Mountain	Missouri				T.				.23	.03		.06	1.34		.06	.15	.09	.15	.10	T.	.15	.07		.08	.59		.07	.83	.01	.02	.02	.02	4.07
Wheaton	do												1.12			.03		.04	.04	.34	T.				.09	.44	.45	.22	.03	.53	.57		3.90
Whites Ranch	Yellowstone																															
White Sul. Springs	Missouri				.03						T.	T.	.85	T.	.23		.43	.05			.30		.06	.14	.02	.40		.02		.02		2.55
Wilder	do			.06							.09	.56	1.52		.04	T.	T.	.06		.63	.07		.52	T.	.07	T.	T.	.06	.02	.58	T.	4.28
Wolf Creek	do			.01	T.			T.	T.	.13	.07	.10	1.62	.16	.23	.01	.33	.01	.02	.10	.12			.03	T.	.32	.40	.15	.02	T.		3.83
North Dakota.																																
Aplin	Knife		.10			.05								.33	T.	.33	.05	.36							.05	.05	.25	.15		.08	.15	1.95
Arnegard	Missouri																															
Ashley	do		.23		.80												.42	.18	.70						.85		.68					3.86
Beach	L. Missouri			T.		.13										.75	.14	.25	.02	T.		.12			.04	.05	.09	.03	.60	.47		2.69
Belfield	Heart		.02		.10								.12		.28	.18		.50							.30	.08	.08	.07	.27			2.00
Berthold Agency	Missouri		.32		T.									T.		.65		.14	.09	.08				T.	.14	T.	.12			.43		1.97
Bismarck	do		.07	T.		.15								.41	.09	.11	.36	.22		.20				T.	T.	T.	.45			T.		2.06
Buford	do	.10											.03			.08		.15	.30	.10					.08		.06		1.20	.24	.02	2.36
Carson	Heart				.10	.18								.03		.15	.43								T.		.45	.30		.11		1.75
Dickinson	do		T.	T.	.01	.04								.47		.31	.36	.14	.03					T.	T.	T.	.15	.10	.01	.25	T.	1.77
Edgeley	James														.07		.50	.60		1.00						.14		.41		1.02		3.74
Epping	Missouri		.08			T.										.36		.40	.05									T.	1.45	.76	.20	2.80
Fullerton	James		.06		.04	.51								.06		T.	.10	.06		.66					.28	.10	.78		.54			3.19
Garrison	Missouri	.22			.03									.11		.40	.05	.38	.51				T.		T.	.12	.40	.14	T.	.02			2.38
Haley	Grand			.15	.25										.22		.40		T.							T.	.22	.30	.45			1.99
Hettinger	do			.11	.32									.03	.27	.60	.70									.56	.91	T.		.46		3.96
Howard (near)	Missouri		.22												.23		.25				.02				.56	T.		.21	1.16	.25	.03	2.93
Jamestown	James	.63	.02		.10	.10								.12			.25		.33	.25						.58		.58			.17	3.13
Lamoine	Missouri				.06	T.									*	.28	.06	.33		.21				.39			T.	.19		T.	T.	1.52
McHenry (near)	James		.02			.13										.08	.01	.70	T.	.72				T.	.14	.21		.06		.29		2.36
Marmarth (near)	L. Missouri			.09		.29								T.	.02	.48	.49	.05		T.					.02	.12	.03			.83		2.42
Marstonmoor	James		.03		.20	.08								T.	T.	.14	.47	.65		.18						.49		.17		.07		2.48
Medora	L. Missouri																															
Melville	James		T.		.15	.22										.14	.17	.24		.20			.18		.38		.10		.02		1.80
Mott	Cannon Ball				.10								.04		.33		.44							.07	.03	.87		.23				2.11
Napoleon	Missouri	1.20	.06		.04	.25									.03	.10	.64		.27	.05					.05		1.45			.17		4.31
New England	Cannon Ball				.07	.06										.50	.25	.06								.48	.06	.01	.50			1.99
New Rockford	James				.02	.01										.03	.02	1.15	.05	.68			.01		.75		.01	.07	T.			2.80

TABLE 2.—*Daily precipitation for June, 1913. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
North Dakota—Con.																																
New Salem	Heart			T.										.15		.20	.60	.39	.06					T.	.03		.35	.22		T.		2.00
Orange	Cannon Ball			.09		.50								.04		.27	.90										.69	.31		.32		3.12
Ranger	Lt. Missouri																															
Ronda	Knife		.17												.27			.51	.17								.28		.34			1.74
Steele	Missouri					.01									.10		.56	.26		.09					.02		.03	.14		.12	T.	1.33
Turtle Lake	do		.12		.11									.03	.06	.27		.35	.16	.02				.15	.10	.06	.34	.15			.02	1.94
Washburn	do		T.											.71		.25	T.	.32		.28			T.	.38	T.	T.	.27	.33		.07		2.61
Williston	do		.07										.06	T.	.16			.22	.08		T.			T.	T.	.04	.99	.01	.42	.03		2.08
South Dakota.																																
Aberdeen ‖	James	.48		.16	.12	.42									.10	.10		.72		.05						.90	T.	T.	T.		.85	3.90
Academy	Missouri	.50				T.	.47							.06						T.	.06				T.	1.95				.71		3.75
Alexandria	James																			.93					1.20				1.54	.23	3.90
Armour	Missouri	.20																								.69				.40		1.29
Bellefourche	Cheyenne													.32														.06	.07	2.60		3.05
Blunt	Missouri													.12					.25													0.37
Britton	James	.08		.09		.12								T.	T.		.22	.04	T.	.14					.75			.10		.26		1.80
Brookings	Big Sioux	.34	.08				.05							.01							.62				T.	.24	.12				.50	1.96
Bryant	do	.56	.12		T.	.83								T.						.38	.06					T.				1.10	.12	3.17
Camp Crook	Lt. Missouri		.09	T.		.23	T.	.01						.03		.10	.65	T.									.17	.06	.41			1.75
Canton	Big Sioux	.16					.39									1.63									.20		1.10	1.09				4.57
Castlewood	do	.07	.06		.04	T.								.11		.01				.53	.02				T.	T.	.04			1.00	.09	1.97
Centerville	Missouri	.31	.01		T.																2.71				.03		2.06				.24	5.36
Clark	James		.07		.08	.37								.02	.05					T.	.10					.02	.78			2.08	.10	3.62
Cottonwood	Missouri		T.											.51												T.	.07	.01				0.59
Custer	Cheyenne		.75	.13				.01						.66					.13	.28							.07	.09	.36			2.48
Daviston	Owl						.50							.25		.10	.60										1.08			.70		3.23
Deadwood	Cheyenne												.05	1.00					.45									T.		.95		2.45
Deerfield	do					.10	.02	.20					.35	.75		T.			.22	.30	.07	1.24				T.	.21	.08	.29	.38		4.21
De Smet	James	.61				.68								T.						.06	.18									.61		2.14
Dowling	Cheyenne		.05											1.95						T.									.40	T.		2.40
Dumont	do						.15						.62	1.01				.33	.35	.13		.05				.31	.15		.54		3.64
Eagle Butte	Grand			.01										.03	.02		.30								.18	T.			.18	.08		0.80
Eales	Missouri			.06	.32	.20	T.	T.	T.				T.	.06		T.	.07		T.	.01					.82	T.	T.	.07		.20	.08	1.89
Elk Mountain	Cheyenne			.37	.03								.38	.18						.18	.10						.32		.43			1.99
Ellingson	Grand			.10	.30									.22	.41		.96							T.		.04	2.34			.38		4.75
Englewood	Cheyenne																															
Eureka	Missouri		.04	.01	.08	.45								.06	T.	.05	.30		T.	.92						T.	.21		.66		.13		2.91
Fairfax	do	.60												.05						.25	.10								.40		.35		1.75
Faith	Cheyenne			.15		T.	T.							.78			.31	T.						T.	.02	T.		.06		.03		1.35
Faulkton	James			.19	.32									.03						.09	.01				.02	.01				.18	.04	0.89
Flandreau	Big Sioux	.30	.12				.80								.10						1.50						1.30			.35		4.47
Forestburg	James		T.			.10								.01						.29	.22					.22	.13			.65		1.62
Fort Meade	Cheyenne													.40	1.00					13							.10	.05		.35	.05	2.08
Frederick	James		.16	.07	.08									.01	.19		.20		.67	.57					.75		.50			.65	.07	3.92
Goldfield	Cheyenne		.85											1.10			.09		.14						.04	.02	.12		.07	.04	.03	2.50
Greenmont	do														.70			.40		.20						.50	.50			.40		2.70
Greenwood	Missouri	.12																		1.53	.02				T.	1.29				.62		3.58
Hardingrove	Cheyenne		T.											.20										T.		T.	T.	T.	.38			0.58
Hardy Ranger Sta	do					.12	.34						T.	.24					.47	1.01	1.12						.19	.36		.57	.02	4.44
Harveys Ranch	do							.07						.40	.70			.05	.35	.05	.06	1.15					.40			.45		3.67
Hermosa	do		T.	.02		.97	.02	T.						1.48		.02			35					.04	.14	.04	.02	T.	.04			3.14
Highmore	Missouri	.23												.04											.36		.01			.33		0.97
Hopewell	Cheyenne													.03						.13						T.				.06		0.22
Hot Springs	do		.30	.10	.40			T.						.90	T.					.10		T.				T.	T.	T.		.20		2.00
Howard	Missouri	.46					.36							.01							.48				.02		.58				1.18	3.09
Howell	James		.09	.01	.30								T.	.34	.06		T.			T.	T.				.03	T.	T.			.83	T.	1.66
Huron	do				T.	T.								T.	.01					.27	.02				T.	T.				.76		1.06
Ipswich	do		.07	.02	.13	.30								T.		.01	.11	T.		.11					.18	T.	T.	.70		.92	.23	2.78
Kadoka	White																															
Kennebec	Missouri													.55							.06				T.					.33		0.94
Kimball	do	.27												.25		T.				T.	.05				.70	.32	.07			1.43		3.09
La Delle	James		.10	.03	.15	T.								T.	.05						.67				T.	.18	1.12			1.65		3.95
Lead	Cheyenne			.11	.14		.05						.12	1.00				.09	.18			.03				.08	.14		.36		2.30
Lemmon	Grand																															
Marion	Missouri	.37	T.		T.	T.	.06							T.	T.						.73				T.		1.76				.61	3.53
Marston	do		*			T.								.61												T.	T.			.18		0.79
Meadow	Grand			.07	1.18									.06		.10	.70								.14		1.15		.25			3.65
Mellette	James	.25	.19	T.	.35								T.	T.			T.			T.					.10	.05				.80	.09	1.83
Menno	do		T.											T.	T.					2.40	T.					1.10				.53	.06	4.09
Milbank ‖	Minnesota	.20		.16											T.	.01			T.							T.	.02				.50	0.89
Mitchell ‖	James				T.															.05	.05					1.00				.82		1.92
Mobridge	Missouri			.10	.10	.95								.53	.05		.59			.15					.10			.82		.35	T.	3.74
Murdo	White		.50										T.	T.							1.50				.25							2.25
Oelrichs	Cheyenne																															
Onaka	James	.01		.06	.46	.03								.10	.03	.05			T.					.26						.59	.54	2.13
Onida	Missouri													.40						.10										.05		0.55
Orman	Cheyenne	.79	.01				.11	.05						.15			.49					13				T.	.12	.26		1.55		3.66
Ottumwa	Missouri																															
Parkston	James	.48																		.12					.46		.20			.90		2.16
Pearl Creek	do						.09													.46	.58				.04					1.20	.03	2.40
Pierre	Missouri													.03						T.										.29		0.32
Pine Ridge	White	.01		.23										.98			.02	T.						.31			.05				T.	1.60
Plankinton	James	.12	T.		T.									.03							.41					.07				.75		1.38
Pollock ‖	Missouri	.29			.14									T.	.01	.03	.50	.26			.17					.34		.76			.20	2.70
Rapid City	Cheyenne		T.	.24	.04	.19	.01	T.					.22	1.83					.51					T.	.18		.19	.03	.05	.01		3.50
Redfield ‖	James	.31	.02	.31	.07										.11	.01				.20	.05									.60		1.68
Rochford	Cheyenne						.19							1.07					.10	.01		1.10				.10	.13		.45	T.		3.15
Rosebud	White	T.		.02	T.								T.	.29			T.				.02					.10				T.		0.43
Roslyn	Big Sioux	.03	.10	T.		.06	T.							T.		.08	T.			.15					.09					.77		1.28
Selby	Missouri			.15		1.45								.15	.11	.49			.15						.12					T.		2.62
Sioux Falls ‖	Big Sioux	.49		.12			.58										.09				1.40					T.	1.70				.76	5.14
Sisseton ‖	Minnesota	.60			.25														.10	.05	.28					.27					.90	2.45
Sorum	Owl			.18	.27			T.					T.	1.13			.77	.02		1.16				.02			1.78			.72	T.	6.05
Spearfish	Cheyenne					.16		.27						.22			.31		.10								.35	.20	T.	1.12		2.73
Stephan	Missouri	.55											.10	.12		.03	T.			.28					.30	.20	T.			.40		1.98
Tama	Cheyenne				.60									.90			.30															1.80
Timber Lake	Grand			.08	.13	.31								.43	.07	T.	.50							T.	.13			1.14	.39			3.18
Tyndall	Missouri	.46			.05																.93				.03		.80			.32	.38	2.97
Vale	Cheyenne		.30			.08	.03	.03				T.		.77			T.			T.							.22	.48		.75		2.66
Vermilion	Missouri																				1.58				.25		.03			.17		2.03

TABLE 2.—*Daily precipitation for June, 1913. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
South Dakota—Con.																																
Waters Ranch	Cheyenne			T.		.12		.20						.27						.02							.13	.02	.03	.39		1.18
Watertown ‖	Big Sioux	.33		.25		T.	T.								.10	.02					.50										2.00	4.30
Wentworth	do		.24				.36							.08							.12						1.52			.42	.10	2.84
Wessington Springs	James																															
White Lake	Missouri																															
Winner	White	.03		.04											T.					.43	T.					T.			.50	.56	1.56
Wood	do			.23										.14							.03				.08				.01		0.49
Yankton	Missouri	.05			T.		.01									.14				1.19	.46				.23	2.24			.26		4.58
Minnesota.																																
Pipestone	Big Sioux	.39	.04											T.							.58				.35	2.01				1.27	4.64
Colorado.																																
Arriba	Republican		.03	.89		T.		.04		T.	.02	.09	.38			.04	T.			T.		.08							T.		1.57
Auldhurst	South Platte	1.35		.02	.02		.01	.31	.01			.27	.10				T.		.04	.04	.03	.09	T.	.01							2.30
Bennett (near)	do			.09			.75					.08									T.				T.				.16		1.08
Boulder	do																															
Burlington	Republican	.04	.02	.75			.01			.03	.02	.30	.23							.45		.52		.01	.01							2.39
Cassells	South Platte	.10				.02	.45	.52	.05	.18	T.	.74			.10		.10		T.			T.					.05					2.31
Castle Rock	do																															
Cheesman	do	.01		T.	T.		.16	.36	.04			.14	.17							.32	T.											1.20
Cheyenne Wells	Smoky Hill	T.	.55	.42	.40		T.			T.	.09	.47	T.	T.	.05					1.00					T.	.04	.01					3.03
Cope	Republican																															
Corona ‖	South Platte		.10		.01	.02	.01	.05	. 0	.06	.12	.73	.43	.58						.06		.03	.17	.19	.10	.02	.02		.04	.03	2.87
Denver	do		.03	T.	.04	.41	.45	.06		T.		T.			.10				T.	T.	T.		T.		T.	T.			.01			1.10
Edgewater	do						.43	.05		.04			.38		.06					T.	.02		.30		.02							1.30
Estes Pk. Fish Hatch	do		T.	T.		T.	.16	.08	T.	T.	.58	T.	T.				T.	T.	T.	T.	.10	T.	T.	.03	T.		.08		.08			1.11
Fort Collins	do								T.	.02									T.					T.	T.		.02	T.		.05	.06	0.15
Fort Lupton	do					.19	.20	.35					.25						T.	T.					T.							0.99
Fort Morgan	do					.74													.12		.18								.08			1.12
Frances	do	.06	T.		.08	.04	.02			.14	.36	.42	.02			.01			.03	.02	.03	.02	.07	T.	.03	T.	.01					1.36
Frys Ranch	do										.32	.10	.05						.10	.03	.07	.05		T.	.05							1.20
Georgetown ‖	do	.11	T.	T.			.19	.33	.22	.15	.51	T.	.22					.22	.20	.01	.08	.09	.08	.03	.05				.43			2.50
Greeley	do							.23												.31									.01			0.78
Grover (near)	do					.09	.27					.05					.02			.71		.03	T.	T.	T.				.14	.10		1.31
Hartsel	do	.10			T.			.28	1.14	.08	.59								.20	.15	.15	.10		.03	T.				.07	.07		2.80
Hawthorne	do		.01	T.		.03	T.	T.				.01	.09		T.				.05	.06				.04						T.		0.29
Holyoke (near)	Republican			.11	.20					T.	T.	.02		.32						.09					.05							1.11
Idaho Springs	South Platte	.05	T.	T.			.25	.30		.14	.27	.36	T.							T.	.36	.01		T.	.01					.32		1.75
Julesburg	do																															
Kersey	do																															
Laporte	do								.07																							0.07
Le Roy (near)	Republican	T.		.06						T.			.17	T.		.06				.18	.01								.04			0.52
Longmont ‖	South Platte						T.	T.				.17	.02						.04					.23					.11			0.57
Longs Peak (near)	do						.52				.35	.20							.40	.10	.05	.02	.32	.30					.02			2.28
Merino	do																															
Moraine	do																															
Platte Canyon	do			.04	.24		1.16	.07		.38									.09		.71											2.69
St. Cloud	do																															
Sedgwick	do			.05	.10								1.76							.55	.05								.02			2.53
Silver Lake	do																															
Spicer (near)	North Platte										.37	T.	T.		T.			T.						.02	.34				.18			0.91
Sterling	South Platte											.02	.24	.03							.53											0.82
Waterdale	do																															
Wray	Republican			.40		.38					.15		.70						.30						.47							2.40
Yuma	do	.28		.01						T.	T.	T.	T.			T.	.12			T.		1.03			.01				T.			1.45
Nebraska.																																
Ainsworth	Niobrara	.02		.11										.08						1.50		.10				.19			.48			2.48
Albion	Loup	1.46		1.06			.37								.23		.38			.17					.07	.12	.11			.28	.26	4.51
Alliance	North Platte	.30	.05	.10	T.	T.						.25	.10					T.	T.	T.	T.			T.					T.	.45		1.25
Alma	Republican		.48		.06		.47			T.		.07									.27			.06		.60					2.18	4.19
Arcadia	Loup		1.55	.12								.16	.02						.50	.26	.05			.16								3.50
Arden ‖	do		.20										.05			.25				.09	.16					.07	.01			.93		1.76
Ashland	Platte	.45		.20	.33	.10	.10									.05					T.				.23	.65					.20	2.31
Ashton	Loup	.57		.67	.30		T.						.09	T.			.70				.06					.39					1.00	3.78
Atkinson ‖	Elkhorn	.47																			.16	T.			T.		.40				.38	1.41
Auburn ‖	Missouri				T.	.27		.36							.03						T.	.25				.48					.01	1.40
Aurora	Blue	.55		.20												.24					.95				.38						.64	2.96
Beatrice	do					.78	.44															.24				1.80					.55	3.81
Beaver City	Republican			.34			1.08							.22			T.				T.				.34	.15				.31	.18	2.62
Bellevue	Missouri	.27			.06	.03	.20	.06											.02		.55	1.11				1.88					.06	4.24
Benkelman	Republican																															
Bertrand ‖	do	.08		.47	.02	.08		.30						.06											.12						1.35	2.48
Blair	Missouri	.70		.11	.02									T.	.11		.35				.28	.02			.39	1.23					.28	3.49
Blake	Loup	.63		.97										.09						.32	1.88				T.							5.09
Bloomfield	Missouri	.27	.10		T.											.10					1.30				.04					1.20		2.16
Bradshaw ‖	Blue	.54		.11	.17	.20		.08													.29	.54			1.52						.30	4.69
Brewster	Loup	.72	.40	.42	.07									.42																	1.24	3.23
Bridgeport	North Platte	.26	.40	T.	.20								T.	T.			.02			.62	.13										.26	.02	1.59
Broken Bow ‖	Loup		.58	.15									.25	.12				.17		.23	T.		.30		.03							3.32
Bruning	Blue	.14		.07	1.16	T.	.11													.38	.50			.10						1.24		3.44
Burge	Niobrara																			T.	T.				.03	1.48				.45		
Burwell	Loup	1.00	1.00		.05									.06							.94				.14					.84		4.03
Butte	Niobrara	.42												T.		T.				.02	.15				T.		.91			.24		1.74
Cairo	Platte	.57		.40		.19	.21										.80				.40				.09						.92	3.58
Callaway	Loup		.90	.46	.43		.03							.43											.02							2.27
Cambridge	Republican	T.		.26	T.		.80			T.	T.	T.	T.	.27		T.	.04			T.	.10				.08					.10	.50	2.15
Columbus ‖	Loup	2.00		.55	.10		.25	.26							.03		1.86								.16	.21					.32	5.74
Crete	Blue	.13		.08	.43	.04	.04	.23													T.	T.	T.		T.	2.30					.22	3.47
Culbertson ‖	Republican			.11	.03		.06				.03		.10	1.32			.65				.12	T.			.03	.31					.42	3.18
Curly	North Platte																															
Curtis	Republican	.14	T.	1.10	.66		.50	.03		T.	T.	T.		.76			T.			T.	.53	T.			.03	.56				T.	.65	4.96
Dalton ‖	North Platte																															
David City	Blue	.77		.45	.20		.03								.24	T.	.72				1.71				.30	.10					.83	5.35
Du Bois	Missouri			.01		.37	.04														.19	.42				1.30					.10	2.43
Dumas	Loup	.45	.78	.26	.07											.79					2.87					.13				.75	.11	6.21
Elm Creek ‖	Platte		.75		1.62								.25											.26							2.50	5.38

TABLE 2.—*Daily precipitation for June, 1913. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Nebraska—Contd.																																
Elsie ‖	Republican	.58		.40	.12								.02	1.86		.05					.53	T.			.09	.01					.08	3.74
Ericson (near)	Loup	1.82													.10	.43					.73										.90	3.98
Ewing ‖	Elkhorn	.25	.45												T.	T.				.25	.24				.05	.02	T.			1.09		2.35
Exeter	Blue	.49			.35																.31					.98					.38	2.51
Fairbury ‖	do				.60	.31	.55												T.			.09			2.57					1.24		5.36
Fairmont ‖	do	.23		.04	.07	.43	.02														.10	.38			.10	.45					.27	2.09
Falls City	Missouri					.93	T.											T.			.21	.27	T.			1.06					.10	2.57
Fort Robinson ‖	White													.30							.12	.04					.22			.05		0.73
Franklin	Republican		.57		.04		.03							T.										.45	.15	.08				.71		2.03
Fremont	Platte	.72		1.15	.08										.25		.41				.93				.48	1.97				.12		6.11
Fullerton	Loup	1.75		.81	.23		.19										.75				2.23					.30	.27				.50	7.03
Geneva	Blue	.33	.02	.07	.40	.02	.01														.04				.10	1.85					.15	2.99
Genoa	do	1.59		.78	.14		1.50										1.09				.56				.40	.05	.12				.27	6.50
Gordon	Niobrara																															
Gosper	Republican			.66	.10									.37		.46					.08									.84		2.51
Gothenburg	Platte	.25		1.00	.35	T.	.70	T.				T.		.35						.15										.33	.45	3.58
Grand Island ‖	do	.40		.36	1.02			T.									.25				T.	.98			.08	.17	.22				.40	3.88
Grant	Republican											.12	.70			.08			.65						.12							1.67
Greeley	Loup	1.08	.40	.03		.04										1.12					.02			.06	.20		.01			1.04		4.00
Guide Rock	Republican			.80	1.20	T.															.13				.30	.05					.70	3.18
Haigler	do											.21	.61			.49																1.31
Halsey	Loup	.12		.09	.04									.80							.03				.05						T.	1.13
Hartington ‖	Missouri	.08					.17										T.				1.48	.38				.38	.08				.52	3.09
Harvard	Blue																															
Hastings ‖	do	.19		.35		.45											.14				.08	.25			.20	.07	.06				.70	2.49
Hayes Center	Republican	.15	.60		.05		.05			T.	.02	.05	.80			.15				.17										.26		2.30
Hay Springs	White			.25			T.							.40						.84	.08			.25		.01				.02	1.85
Hebron	Blue			.07	.74	T.	.13								T.										.03	.97				1.08	3.02
Hemingford ‖	Niobrara			.03			.23							.04	.15						.09	.03			.04			.07				0.68
Hendley ‖	Republican		.20				.66						.18								.55			.20	.05					.30		1.59
Hershey ‖	South Platte	1.10		.54	.08			.36			T.			1.40																	.01	4.04
Hillside	North Platte		.20	.11			.35				T.	.01		.72	.09					.03	.11					.20						1.82
Holdrege ‖	Republican			.56		.10		.22						.13											1.05						.57	2.63
Hooper	Elkhorn	.84	.83												42	.38		1.26			1.54					2.93						8.20
Hull (near) ‖	North Platte				.20	.20		.19			.40	.20								.10	.09	.02	.06										1.46
Imperial	Republican	T.	.51			T.			T.	T.	.15	.55				.05				.64	T.				.05					.05		2.00
Kearney	Platte	.40		.80	.53																T.				.20	T.					1.12	3.05
Kimball ‖	South Platte		.10	T.	.19								.12				.05		T.		T.		T.	T.	T.				T.		.16	6.62
Kirkwood	Niobrara	.14			T.									.16							.16					.35				.12			0.93
Kowanda ‖	North Platte		.11			.61	.02				.03			.66				.51			.08												2.02
Lexington	Platte	.47		.60	2.12	.04								.30				.05							.18					.11	.57	4.44
Lincoln	do	.20	.18	.01	1.07	.06	T.	.17								.02				T.	T.	T.			.23	.08					.25	2.27
Lodgepole	South Platte	T.		.14	.02		.12					T.	.34	T.			.15			.05	.22									T.		1.04
Loup City	Loup	.75	.72	.31									.17			.20				.18	.08				.08					1.15		3.64
Lynch ‖	Missouri																				.24				.02	1.20				.51		1.97
McCool Junction	Blue		.13		.25	T.											T.			.09	.20			.14	.12						.41	1.43
Madison	Elkhorn	.60					.48								.10	.31					.47				.25								2.21
Marquette	Blue	.57		.43	.14		.07								.30		.16				1.06				.13	.03					.18	3.07
Mary	Loup	.27	T.											.61							.23				.07	.85	.53			.14		2.70
Mason City ‖	do		.66		.35				.22				.10							.55					.15							2.03
Minatare	North Platte		.26		.10														.38				2.08				.06			.03		2.83
Minden	Blue			.50	.03		.25														T.				.29					.55	.49	2.11
Mitchell	North Platte				.08	T.		.25					.14	.38						.09	.08	.02				.12	.03					.03	1.28
Nebraska City	Missouri			T.	1.85	.13								T.						T.	.42				1.30					T.	3.70
Nelson	Blue		.26		.36																				.25	.10				.50		1.47
Norfolk	Elkhorn	.60		.81	T.		.02								.20	.10				.10						.90					.30	3.03
North Loup	Loup	.82		1.08	.03										.17	1.41					.15				T.	.30					1.26	5.22
North Platte	Platte		.40	.04	.01	T.	.06			T.		T.	.83	.23		T.				.53					T.					.03		2.13
Oakdale	Elkhorn	.36	.17												.06	.88				.20	.19				.09	1.10				.65		3.70
Omaha	Missouri	1.08	.01	.03	.06	.03	.01	.02								.02					.08				.64	.28					.02	2.28
O'Neill ‖	Elkhorn	.29		T.																	.40				T.						.83	1.52
Ord	Loup		.85										.04	.06						1.48	.47			11								3.01
Orleans ‖	Republican	.78					.47													.12				.17	.08					2.05		3.67
Osceola	Blue	.77		.33	.22		.25								.42						1.01				.07	.12					.73	3.92
Oshkosh	North Platte					.46	.11						.73					.27			.07					.05						1.69
Palisade	Republican		.16										.47							.05										.75		1.43
Pawnee City	Missouri				.38									.25							*	1.05				.90					.10	2.68
Paxton	South Platte			.68	T.								T.	.51						.26	.18				.02							1.65
Plymouth ‖	Blue				1.00	.50	.15																								.95	2.60
Purdum	Loup	.64	T.											.68							.07				.18	.70	.11		T.			2.38
Ravenna	do	.32		.34	.21		T.							.20			.25				.18				.06	.02				1.59		3.17
Red Cloud	Republican	T.		.86	.20	T.	.01	.03		T.				.01							.53				.10	.01					.69	2.44
St. Libory	Platte	.85		.50	.20		.01							T.			.80				.95				.17	T.					.96	4.44
St. Paul	Loup	.94		.38	.18									.10			.82				.95				.08					1.04		4.49
Santee	Missouri	.42			.12																2.09				.05		2.49			.07	.44	5.68
Schuyler	Platte	2.00		.30	.40	T.								T.	.30		1.30				2.80				.07	.26						7.43
Scottsbluff	North Platte		.39	.07	.11	T.		.05					.66	.21				.03	.47	.04		.10		.06	T.	.06					.14	2.39
Seward	Blue	.35		.18	.78	.03											T.				.15				.02	.20	T.				.37	2.08
Sidney	South Platte	.26		.10		.20							.01			.01	.06			1.23										.02		1.89
Springfield ‖	Platte	.57		.03	T.	.16	.29										T.						.22		.14	2.32					.10	3.83
Springview	Niobrara			.22										T.						.17	.03						.30			1.00		1.72
Stanton	Elkhorn	.80		.42			.63									.91					1.42				.35						.40	4.93
Stapleton	Loup																															
Stratton ‖	Republican										T.		.61			29				.19										.48	1.57
Superior ‖	do			.25		.67		.20																		.40					.87	2.39
Syracuse	Missouri	T.			.93	.25	1.71	.13						T.							2.51	T.			.01	.47					.19	6.20
Table Rock	do			.02	.24	.05	.04	T.						.27							.27	.07				.66					.18	1.80
Tecumseh	do					.34	.02															.32				.66					.57	1.91
Tekamah ‖	do	.39		.10	T.										.73		.55					.95			.03	.49					.18	3.42
University Farm	Platte	.25		.35	.91	.23	.09	.10									.03				T.	.02				.19					.40	2.57
Valentine	Niobrara		.23		T.								.07	.03						.40					.01	T.				.27	.02	1.03
Wahoo	Platte		.45		.42									.10		.30					.25				.75					.23		2.50
Wakefield	Elkhorn	.20		.03			T.								.04	.03					.04				.31						.42	1.07
Walthill ‖	Missouri	.08					T.							.01	.08	.28					.88				T.	.05					.49	1.87
Watertown	Platte	.52	.50			.48								.25							.05				.16					1.10		3.06
Wauneta	Republican		.75									.15	.65			.10				.70											.20	2.55
Weeping Water	Missouri	.44		.02	.25	.39	.23	.01									.16				3.15	.25			T.	.38					.14	5.42
Westpoint	Elkhorn	.43	.30											T.							.45				.46						.92	2.56
Wisner	do	.52					.38								.14		.19				1.06				.34	.02				.44		3.09
York	Blue	.38		.07	.26	T.	T.							T.			T.				1.76				.25	.04					.43	3.19

TABLE 2.—*Daily precipitation for June, 1913. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Iowa.																																
Afton	Grand			.03			.03	.40													.23	1.75			.70	.75					T.	3.89
Allerton	Chariton			.37		.03		.70														.15	T.	.02	.22	3.03					T.	4.52
Alton	Floyd	.35			.08		.10							.34							.45				.07		.30				.40	2.09
Atlantic	Nishnabotna	.13		.01	T.	.01	.26							T.	.03						1.63	.64			T.	.39					T.	3.10
Audubon	....do	.28		.29			.12														.48	.21			.59							1.97
Bedford	Missouri	T.				.25	.01	.21													.25	.43			.33	1.58					.04	3.10
Centerville	Chariton			1.56		.02		.32														.45			.31	3.05						5.71
Chariton	....do	T.		T.	T.	T.	.28															1.15				2.20						3.63
Clarinda	Nodaway					.44	.03	.07	T.													1.66			.24	1.65						4.09
Corning	....do			.28	T.	.13	.25	.33													.34	1.15				.59						3.07
Corydon	Chariton			.06		.01	.01	.49														.17	T.		.07	2.83						3.64
Council Bluffs	Missouri	1.20		.07	.03	.02	.13	.12												1.91	.43			T.	.80					30	T.	5.01
Creston	....do	.18		.04			T.	.58	.01						T.							1.96		T.	1.20	.47						4.44
Cumberland	Nodaway	.45					.53													.01	.45	1.08				1.60						4.12
Denison	Missouri	.14					.23								.06						.20	.02			.70	.26						1.61
Elliott	Nishnabotna	1.10			T.	T.	1.95														1.04	2.29		.27							T.	6.65
Greenfield	Nodaway	.50					.23														.65	1.00			.20	2.00						4.58
Harlan	Nishnabotna	.30		T.	T.	T.	.09	T.						T.	T.	T.	T.				.45	.01			.48	.32					T.	1.65
Inwood	Big Sioux	.33	T.		T.		.42							.03		T.					1.69				.11		1.00				.18	3.76
Lake Park	Little Sioux		T.												T.	T.					.85						1.40				T.	2.25
Lemoni	Grand			T.		.10		.10														.35		.02	.54	2.50					.02	3.63
Le Mars	Floyd	.18		.05			.01							T.	.07						.21				.07		.04				.55	1.18
Lenox	Missouri			.19		.10		.56													T.	1.08			1.01	.80						3.74
Leon	Grand	.10			T.	.05	T.	.50													T.	1.10	T.	T.	.15	2.40	T.					4.30
Little Sioux	Little Sioux																															
Logan	Missouri	.63			T.										.25						.30				.14	.79						2.11
Mount Ayr	Grand	T.		.05		.03	.01	.15												T.	*	.62			1.60	2.25					.02	4.73
Murray	....do	.01		.01		T.	T.	.85													.05	1.73			.26	2.04					T.	4.95
Northboro	Missouri			T.		.64		.27						T.							.20	.20			.09	1.56					.05	3.01
Odebolt	Little Sioux	.25		.32		.22									.27						.75				.05	.05						1.91
Onawa	Missouri	.15		.10											.22		.80				.82	.01			.12	.18					.35	2.75
Pacific Junction	....do	.22			.63	.17	.35										T.			T.	.80	.92			.18	1.09					.12	4.48
Rock Rapids	Big Sioux																															
Sheldon	Floyd	.15			T.	.35							.13								.89				T.		1.75				.28	3.55
Sibley	Big Sioux	.24		.05	.02	T.									.01			T.			1.57					T.	.27				.26	3.42
Sioux Center	Floyd	.26			.09		.11							T.		T.					1.15				.04		1.02				.22	2.89
Sioux City	Missouri		T.		T.		.02							.04	.05	.10					.07				.03					.28	.16	.75
Spencer	Little Sioux			T.	.35		.02					.08									.30				.27	.01	.57				T.	1.60
Thurman	Missouri	.14		T.	.10	.69	1.18	T.						.02			T.			T.	.38	.24			T.	1.55					.06	4.36
Washta	Little Sioux		.90	T.										.15	.50						.05				T.						.18	1.78
Kansas.																																
Abilene ‖	Smoky Hill					.14				T.	T.											.80	T.										0.94
Agricultural College	Kansas					.62	T.	T.	T.	T.								T.			T.	.75			T.						.18	1.55
Alton	Solomon				.54	.22	.26	.21						T.						.10	.22				.16						.50	2.21
Atchison	Missouri					.68		.12																	1.65						.20	2.65
Beloit ‖	Solomon					2.30	.93	.05			T.			T.			T.				.40		.01		.20						.54	4.43
Blakeman	Republican						.32					.16		.50			.58				.02				.07						.17	1.82
Blue Rapids ‖	Blue				.65	.03	.67		.05						.03							.48				.32					.34	2.57
Centralia	....do			T.		.55	.05	.03													.03	.45				.10					.20	1.41
Chapman	Smoky Hill																															
Clay Center	Republican				.30	.50	.25		T.											T.	.18	.17									.78	2.18
Colby	....do				.03	.05	T.	.07		.12	T.	.29	.04	.13			1.12			.55										.30	.15	2.85
Concordia	....do				1.44	.48	.09													.14		.33							T.		.28	2.76
Densmore	Solomon			.13			.71			T.										.34	.61				.34						.75	2.88
Dresden ‖	Republican	T.		T.		T.		T.			T.		T.	.15			T.				.15	.15	T.		.85						.90	2.20
Ellsworth	Smoky Hill		T.				.82	T.	.03	T.				T.							.10	.09			.02						.10	1.16
Emmett	Kansas				.98		T.	.33														.28			T.							1.59
Eskridge	Osage					1.00		.02														.10			.38						.50	2.00
Farnsworth	Smoky Hill		.31		.29		.09			.07	.05	T.		.42						*	1.38											3.21
Fort Scott ‖	Osage			.08	.05	.05		1.05	T.														T.	T.	T.	.10						1.33
Frankfort	Blue				T.		T.	.11													.15	.42			.96	.10					.40	2.14
Garnett	Osage					1.55		.01	.57	.05													.76	.03	.26	T.					.84	4.07
Goodland	Republican																															
Hanover ‖	Blue					.54	.21	.01														.61			.05	.15					.31	1.88
Harrison	Republican				.35	.68	.20	.04			T.						.29				.03				.27					.76		2.62
Hays ‖	Smoky Hill					.03	1.27	.18			T.	.13		.34							1.41	.03			.12	.02					T.	3.53
Hill City	Solomon					T.					T.		.26		T.					.33	.38				.19						.77	1.93
Holton	Kansas					.75		.78										T.	T.		.03	.07		14	T.	.30					.38	2.45
Horton ‖	....do				T.	.89	.04	.59	T.													.03	.67		.19	.80					.10	3.31
Hoxie	Solomon						T.			T.	.11	T.		.15			.22		.06	.23	.81				.57					T.	.56	2.71
Lawrence	Kansas				.40	1.55			.03																5.00						.60	7.58
Leavenworth	Missouri					.95		.55															.03			.10						.03	1.66
Lebanon	Solomon				1.98	.10	.12														.21	.71										3.12
Lenora	....do								.05				20							.30	.46				.79	.03				.62		2.45
Leoti	Smoky Hill		.33	T.	.54		.02			.27	.08	.25	.14	.24						.07				T.					T.			1.94
Lincoln	Saline	T.			.43	.47	T.	.07	T.	.16				T.						T.	.10	.15			.01						.12	1.51
Lindsborg ‖	Smoky Hill						.24	.12						.19							1.17										.15	1.87
McCracken	....do						.16	.55		.09	T.			.50	.20					.32											T.	1.82
Minneapolis	Solomon	T.			1.43	.40	T.			.01				T.						T.	.91	.05	T.	T.	T.						.07	2.87
Moran	Osage			T.			.10	T.	.14											T.		.72	.20		.05						.75	1.96
Natoma	Saline																															
Norton	Republican			.10			1.02		T.	T.	T.									.15	.99					.05				1.50	1.05	4.86
Oberlin	....do			.11			T.				.02	T.		.18			.21				.07				.47	T.				.27	.16	1.49
Oketo	Blue				.33		.06							.10							.60	.05			.10	.51					.61	2.36
Olathe	Kansas					.54			.09						T.					T.		T.		25	.67					.35	1.90
Oskaloosa	....do					.86		.64															T.	T.	.23	.12					.37	2.22
Ottawa	Osage				1.03	.21																		41	.05						.50	2.20
Phillipsburg	Solomon			.20	.07	T.	.76	.04		T.	T.			.09						T.	1.09				.18	.02					.82	3.27
Plainville	Saline			.09	.36		.45	.21		.16	.03		.11							.06	.29										T.	1.76
Pleasanton	Osage					.13	.11		.05											.05		.80	.30		.20						.76	2.40
Quenemo	....do				.50	.80			.01										.02				T.	T.	.11					1.11	2.55
Republic	Republican			.06	.28		.80														T.				.02	.10	T.				1.33	2.59
Russell	Smoky Hill				.27	.60	.16			.15				.12						.42	T.				2.90						T.	4.62
Russell Springs	....do																															
St. Francis	Republican		T.		.04		.03			T.		.33		.97			.05			.48	.10	.02			.38					.25	.01	2.66
Salina	Smoky Hill		T.			.54	.13	.33	T.	.02				T.							T.	.24									.53	1.79
Scott	....do									T.	.06	.03	.04	.95							.46			T.								1.54
Smith Center	Solomon			.10	1.60	.02	.25			T.											1.02				.18						.89	4.06
Topeka	Kansas				.84	.54	.98	T.	.01										T.			.08		T.	.45						.48	3.38

TABLE 2.—*Daily precipitation for June, 1913. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Kansas—Continued.																																
Tribune	Smoky Hill	.54	.15		1.05	T.	.03		T.	.10	.05	.40	.15	.75						T.										.60	.15	3.97
Valley Falls	Kansas					.60	.10														.04	.05			.12	.05					.20	1.16
Vinland	do					1.08		.04	T.														.13	.39							.65	2.29
Wakeeney	Smoky Hill				.03	T.	T.			.17				.22	T.	.14				4.00	.52										T.	5.08
Wallace	do		.16							.11	.06	.18	.27	.32																		1.10
Wamego	Kansas				T.	1.00	.02	.80		.12								.21			T.	.56		T.	.01						.42	3.14
Missouri.																																
Amoret	Osage			T.		T.	.29	T.	.48													.89	.51	.05	.20						.40	2.82
Appleton City	do																					.69	.05					.10				0.84
Arlington	Gasconade			T.				.08	.72	.85														.52	.20	.32						2.69
Arthur	Osage			T.			.45		T.													.61	.10		.20					T.	.30	1.66
Avalon	Grand			.10		.43																	.80		.48	.45					.04	2.30
Bagnell	Osage																						1.00			.50						1.50
Bethany	Grand			T.				1.06															.21	.30	2.01	2.81						6.39
Bolivar	Osage			1.48					.66														.13	.47	.30						.03	3.07
Boonville ‖	Missouri					.06	.04	.04															.66	.52	.30		.30				.29	2.21
Brunswick ‖	Grand					.40																	.07			1.11	T.					1.58
Clinton	Osage								.52													1.05									1.57
Columbia	Missouri	T.				.01	.12	.03													T.	.23	.35	1.30	.15	.15				T.	.06	2.40
Conception	do			T.		.05		.15												T.	.08	.16			.19	.89					.04	1.56
Crocker	Gasconade								1.86													.53		.17	T.							2.56
Eldon	Osage							.19	.33													.12	1.52	.02	.34							2.52
Fayette	Missouri	T.				.02	T.														T.	.61		.36	.22	.50				.05	.30	2.06
Fulton	do																					.70	.42	.43	.63	.30						2.48
Glasgow ‖	do					.22																	.98		1.06	1.62	.60				.12	4.60
Grant City	Grand			T.		.10	T.	T.												T.	.30	.68			1.07	2.72						4.87
Harrisonville ‖	Osage					.98			.04	.48											T.		.03		T.	1.10						2.63
Hazelhurst	Grand	T.		.53		.22		.46														.05	T.	.16	1.22	.67					.02	3.33
Hermann ‖	Missouri		.01				.22			T.												T.	.56	.38	.18	.24	T.				.03	1.62
Houston	Gasconade		T.	.60				.08	.85													.05		1.65								3.23
Jefferson City ‖	Missouri									.03													1.47	.10	.17	.15					.25	2.17
Kansas City	do				.34	.39		.01																	1.84	.01					.22	2.81
Kidder ‖	Grand				.65	.40	.05	.47	.08														.61		.08	.86						3.20
Lamonte	Missouri	T.				.10		T.													T.	.37	.60	.10	.03	T.			T.		.80	2.00
Lebanon	Osage			.16				.37	.87													.04	1.90		.05						1.08	4.47
Lexington ‖	Missouri					.53										28							.25		.05	.76						1.87
Liberty	do						T.								T.							T.	T.	.11	.16	.10				T.	0.37
Lockwood	Osage			.28					.12													.23	T.						T.			0.63
Marshall	Missouri																															
Maryville ‖	do					.40		.09								T.					T.	.40	.01	T.	.17	1.60					.13	2.80
Mount Vernon	Osage	.10		.78	.02	.08																1.40	.20	.27	T.				T.		T.	2.85
Nevada	do			.31			.98		.10											T.		.05	.25	.30	.10						.05	2.14
Oregon	Missouri			T.	.42			44										T.			.10	.10			.14	.80					.16	2.16
Osceola	Osage							.20	.30	.04													1.40	.03								1.97
Pattonsburg ‖	Grand				.57	.18		1.12														.10	.12	.06		1.13						3.28
Rolla	Gasconade		.27						.65													T.	.33	1.50	T.							2.75
St. Charles	Missouri	.36				T.																16	1.64	.60	.21							2.97
St. Joseph	do				.13	.08	.26	.01													.10	.02	.02	T.	.04	.37					.21	1.24
St. Louis (1)	Mississippi	T.				.26		T.													T.	.01	.88	.35	T.	.05				T.		1.55
St. Louis (2)	do	T.				1.05		T.													T.	.01	1.56	.52	T.	.09				T.		3.23
Sublett	Chariton					.25		1.00														T.	.40		1.20	.80						3.65
Tarkio	Missouri					.83	.11							28							.06	.60				1.61						3.49
Trenton	Grand			.76	.14	T.	.56	.32							T.						.02	.09	.03	.29	1.76	T.					.02	3.99
Unionville ‖	Chariton	T.			.16	T.	.20	1.20	T.													T.	.20	.12	T.	2.20	.10					4.18
Warrensburg	Missouri	T.				T.	.01		.06												T.	.79	.25		.01	.14			T.		T.	1.26
Warrenton ‖	do		.04				T.																.53	.45	.08	.98					T.	2.08
Warsaw	Osage			.11			.48	T.	.17													.54	.23	T.	.12							1.65
Wheatland	do			.10							.58								.18			.18	.30						.20			1.54

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for June, 1913. District No. 6, Missouri Valley.*

Date.	Wyoming.																Montana.											
	Basin.		Cheyenne.		Fort Laramie.		Lander		Newcastle.		Pathfinder.		Sheridan.		Yellowstone Park.		Billings.		Dillon.		Havre.		Helena.		Lewistown. §§		Malta.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	80	40	68	46	.....	.....	78	42	84	60	84	47	80	44	74	40	88	46	82	42	85	51	85	51	84	51	87	48
2....	88	44	77	44	.....	.....	79	46	82	54	81	51	73	45	70	43	77	50	77	38	72	45	79	52	71	56	74	57
3....	90	46	69	41	.....	.....	76	42	76	60	82	46	78	44	72	36	80	50	78	37	72	48	82	50	76	45	70	48
4....	90	50	77	46	.....	.....	75	44	80	56	84	49	83	47	72	43	89	48	80	45	84	49	78	53	71	45	85	48
5....	88	46	78	47	.....	.....	79	43	85	54	80	48	76	43	65	41	83	48	81	45	72	51	77	52	73	46	83	54
6....	87	45	67	46	.....	.....	69	47	76	55	79	48	59	52	65	45	62	48	83	42	68	46	75	48	69	45	72	37
7....	90	48	57	44	.....	.....	68	42	61	45	71	49	70	52	74	44	74	51	78	37	75	49	78	48	76	46	74	43
8....	90	50	66	40	.....	.....	73	42	71	54	76	46	76	48	71	46	82	46	80	40	84	47	81	54	82	48	83	60
9....	92	49	58	44	.....	.....	71	48	64	56	76	51	77	55	72	44	83	50	76	41	88	57	82	50	82	48	88	56
10....	94	50	63	43	.....	.....	71	48	64	50	73	48	83	50	68	42	85	49	71	39	87	56	75	51	80	50	90	55
11....	89	46	68	45	.....	.....	68	47	76	55	69	49	73	50	51	41	78	52	64	35	82	57	69	50	73	47	87	60
12....	90	44	66	40	.....	.....	66	45	80	45	67	44	71	47	64	39	82	44	65	38	72	59	66	49	78	50	78	60
13....	92	50	72	45	.....	.....	78	42	74	52	72	48	78	46	65	44	86	52	67	40	82	58	72	49	80	48	83	52
14....	94	50	80	50	.....	.....	82	49	86	50	75	51	68	51	66	42	85	46	69	39	76	54	65	48	67	45	85	46
15....	93	52	84	50	.....	.....	86	46	85	55	83	53	81	52	73	37	80	48	68	37	72	47	74	42	72	42	84	47
16....	95	50	88	52	.....	.....	85	46	83	66	85	49	82	49	75	43	82	48	60	34	82	55	72	50	72	54	82	43
17....	98	52	81	49	.....	.....	84	52	90	65	87	54	83	55	70	41	84	50	70	39	84	50	73	50	77	45	87	56
18....	96	54	78	48	.....	.....	80	52	84	57	83	59	75	55	70	43	80	58	71	42	82	60	77	49	75	54	81	65
19....	90	50	75	50	.....	.....	87	54	86	60	85	57	79	54	76	45	84	52	74	40	82	58	82	52	70	50	80	57
20....	95	54	78	48	.....	.....	85	50	84	56	88	53	76	55	70	46	80	56	80	45	77	56	71	51	74	50	78	52
21....	94	52	71	47	.....	.....	86	48	85	56	88	53	83	56	73	38	87	58	83	40	82	52	79	50	83	48	83	57
22....	90	50	80	49	.....	.....	88	49	94	60	88	54	90	53	74	51	87	59	80	41	87	54	78	54	82	48	81	48
23....	88	44	82	48	.....	.....	80	53	94	60	82	62	81	52	64	44	88	62	84	46	72	58	66	56	70	52	83	55
24....	90	46	71	52	.....	.....	73	47	80	56	74	53	73	53	58	42	76	55	77	40	72	51	71	49	70	55	73	45
25....	88	42	77	53	.....	.....	75	51	82	56	71	50	70	52	59	44	73	51	76	42	70	44	58	47	62	43	70	47
26....	86	40	81	53	.....	.....	73	53	78	58	73	51	67	55	57	45	63	54	70	38	70	53	53	46	62	45	77	55
27....	90	44	86	52	.....	.....	77	53	91	64	83	53	86	55	63	44	81	52	68	38	67	57	69	46	77	51	65	54
28....	90	48	85	52	.....	.....	77	46	92	70	83	55	80	54	59	45	75	57	66	40	75	55	67	50	69	50	74	52
29....	91	47	73	51	.....	.....	72	40	76	58	69	49	69	53	57	43	73	52	71	41	72	57	68	50	62	50	56	55
30....	89	46	77	45	.....	.....	77	40	80	48	75	48	76	45	61	44	79	49	70	42	74	54	70	47	73	49	65	51
Mns..	90.6	47.6	74.4	47.3	.....	.....	77.3	46.9	80.8	56.4	78.9	50.9	77.2	50.7	66.9	42.9	80.2	51.4	74.0	40.1	77.3	53.0	73.1	49.8	73.7	48.6	78.9	52.1

Date.	Montana.				North Dakota.										South Dakota.													
	Miles City.		Poplar.		Berthold Agency.		Bismarck.		Dickinson.		Jamestown.§§		Williston.		Aberdeen.§§		Ellingson.		Huron.		Kadoka.		Kimball.		Pierre.		Rapid City.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	87	55	83	44	79	44	77	49	77	41	82	49	79	45	69	53	77	46	73	56	77	55	76	57	77	58	74	54
2....	75	57	74	51	71	52	75	54	73	55	73	50	68	52	85	50	63	55	83	49	85	50	84	50	84	60	82	55
3....	74	54	73	50	71	49	67	47	64	44	76	44	68	47	70	51	63	48	73	50	72	50	75	51	71	56	65	54
4....	90	52	84	54	79	50	78	49	79	42	66	48	78	46	80	48	84	44	80	52	86	56	83	51	85	58	80	56
5....	80	58	79	56	85	56	87	57	83	53	73	51	78	46	91	54	83	54	90	60	86	57	90	59	90	63	80	57
6....	61	47	69	43	67	41	63	44	71	40	84	42	62	42	63	45	62	42	68	45	67	53	71	54	72	51	64	49
7....	68	48	71	41	67	35	64	33	65	34	61	34	66	42	62	36	61	44	63	36	65	45	70	38	64	46	58	46
8....	84	52	83	43	75	46	68	48	72	50	63	38	74	50	70	45	73	49	66	48	74	48	69	47	68	52	72	46
9....	84	60	85	55	77	48	72	49	75	49	67	42	77	54	74	46	75	48	69	46	75	48	70	42	72	50	67	49
10....	85	58	87	59	80	55	78	53	80	52	71	45	82	58	78	47	78	50	73	46	77	52	76	43	78	52	69	51
11....	88	62	94	54	87	58	84	56	84	55	76	47	88	59	85	52	84	57	82	49	82	56	82	49	80	56	79	58
12....	83	60	88	61	95	59	91	62	88	51	83	56	88	58	88	57	87	58	85	56	81	60	85	55	84	64	80	49
13....	85	58	85	53	83	58	79	61	74	56	87	60	83	58	80	56	69	59	80	60	76	56	80	60	74	63	61	53
14....	90	54	90	55	89	47	90	59	86	53	84	55	87	57	94	60	87	53	91	59	.....	.....	93	57	95	61	89	59
15....	79	54	78	53	79	53	81	55	77	52	91	58	78	54	93	62	79	51	92	62	90	60	91	61	91	65	80	61
16....	84	59	81	53	83	51	78	54	77	54	85	52	79	54	82	58	80	54	89	62	87	60	94	60	88	62	76	55
17....	86	62	88	55	85	56	80	58	80	58	77	54	84	62	86	56	82	57	98	65	97	57	98	61	98	66	85	58
18....	85	66	79	63	78	57	79	56	75	59	71	59	75	59	96	60	77	59	96	66	.....	.....	97	63	98	70	89	58
19....	82	62	80	57	76	57	73	58	70	57	77	60	75	56	83	61	71	57	95	67	.....	.....	97	66	90	71	77	60
20....	88	62	76	57	85	57	81	58	78	57	75	53	81	59	82	62	77	61	79	61	96	64	76	64	81	66	74	62
21....	87	58	87	51	86	49	81	55	83	53	78	49	86	53	87	52	82	53	82	52	83	55	85	57	84	56	79	58
22....	90	65	92	64	94	57	90	58	92	57	80	50	91	64	89	52	92	59	85	58	99	64	90	57	90	64	90	56
23....	90	62	96	64	100	61	99	68	100	63	87	69	94	63	96	62	98	64	91	58	87	60	96	60	99	67	94	58
24....	76	59	78	60	90	60	83	63	91	64	96	69	75	56	89	68	78	57	86	66	.....	.....	97	60	90	66	77	56
25....	70	56	72	49	85	48	77	55	75	55	88	60	69	52	81	56	78	49	85	58	.....	.....	90	55	85	60	80	53
26....	70	58	78	42	64	44	68	57	66	50	80	59	63	48	91	62	71	53	90	63	91	53	95	66	92	66	79	57
27....	85	56	67	52	70	44	83	54	75	51	75	56	73	50	97	62	85	51	96	70	.....	.....	89	64	104	67	86	64
28....	82	54	83	57	85	59	100	62	80	59	81	58	73	59	100	67	84	63	97	72	.....	.....	97	75	101	80	87	59
29....	70	58	76	59	80	60	83	61	78	60	95	74	77	59	87	76	77	58	94	68	.....	.....	89	67	83	71	79	57
30....	78	54	74	54	79	58	81	57	79	50	87	57	73	56	82	56	80	53	85	62	.....	.....	85	59	87	61	81	54
Mean.	81.2	57.3	81.0	53.6	80.8	52.3	79.7	55.0	78.2	52.5	79.0	53.3	77.5	53.9	83.7	55.7	77.9	53.5	83.9	57.4	82.3[1]	55.2[1]	85.7	56.9	85.2	61.6	77.8	55.4

TABLE 3.—*Maximum and minimum temperatures at selected stations for June, 1913. District No. 6*—Continued.

Date.	South Dakota.						Colorado.				Nebraska.															
	Sioux Falls.§§		Watertown.§§		Yankton.		Denver.		Wray.		Alma.		Bridgeport.		Grand Island.§§		Hay Springs.		Hebron.		Lincoln.		North Platte.		Oakdale.		Omaha.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	73	58	76	54	74	57	70	54	86	55	91	58	79	50	76	63	85	52	83	62	78	60	78	58	74	56	79	60
2....	84	54	78	51	86	52	84	48	87	55	87	48	88	50	87	54	83	53	83	48	84	52	84	54	83	47	83	60
3....	79	52	70	50	74	59	78	48	81	54	88	49	75	49	74	59	75	51	76	60	75	60	73	58	75	58	76	64
4....	78	43	76	49	80	53	78	50	82	52	84	58	83	52	75	58	80	52	84	58	81	58	81	56	81	54	80	60
5....	90	58	88	51	85	63	82	50	84	53	87	60	88	52	82	61	84	55	82	62	83	63	85	60	83	61	83	66
6....	64	60	62	51	71	51	73	52	81	58	77	56	78	55	71	66	73	53	80	62	79	61	72	53	67	52	80	63
7....	65	42	62	40	65	46	65	50	69	48	71	46	70	45	67	47	65	44	69	54	64	54	68	45	67	45	65	54
8....	68	40	67	41	65	44	68	46	70	50	67	47	70	43	66	53	70	42	65	50	65	47	66	43	68	39	65	46
9....	70	43	69	42	68	48	71	50	62	40	64	49	59	48	69	46	65	44	68	47	69	47	63	48	69	39	68	48
10....	75	43	71	38	71	46	70	48	60	41	72	50	66	46	73	45	65	46	71	43	73	43	64	51	72	43	73	48
11....	80	47	77	43	78	49	74	52	64	50	76	54	73	54	78	51	75	54	77	48	80	52	66	56	78	48	78	54
12....	83	53	81	51	82	57	72	50	70	50	80	49	78	52	82	54	80	51	80	53	83	54	77	56	82	54	82	58
13....	85	58	80	54	82	61	80	46	84	47	85	57	79	52	86	60	72	51	83	62	85	61	79	51	81	59	84	60
14....	88	55	88	59	93	63	88	52	85	50	96	59	92	41	97	64	90	64	93	63	96	64	92	52	92	59	94	66
15....	94	53	90	59	98	69	92	55	90	55	100	64	95	55	101	71	85	55	96	67	98	69	94	64	97	67	96	68
16....	95	60	80	59	92	63	87	53	93	63	89	68	.....	.....	96	67	85	52	93	66	96	68	90	64	88	63	95	68
17....	96	60	89	60	93	64	90	58	91	58	95	61	91	50	94	62	91	53	93	61	95	65	91	66	90	61	95	70
18....	94	65	93	62	92	73	82	58	91	61	94	62	87	58	93	66	90	53	91	65	94	69	88	64	89	68	93	74
19....	94	68	93	66	90	65	79	57	90	58	89	65	86	58	88	69	84	58	82	68	85	69	85	64	88	68	86	72
20....	76	64	78	62	75	64	81	55	91	57	82	63	83	53	72	68	76	60	84	66	83	68	80	64	73	66	82	68
21....	83	58	81	53	81	62	74	54	84	50	84	58	82	57	80	64	78	58	88	64	85	68	80	60	81	63	84	69
22....	84	62	82	53	82	61	84	53	88	57	87	53	88	56	82	68	88	55	86	59	83	62	84	57	82	58	82	64
23....	87	63	85	54	88	60	88	57	92	62	95	61	92	56	91	62	92	55	91	63	91	57	89	64	87	60	87	64
24....	85	65	83	59	88	67	79	57	94	57	96	64	.....	.....	90	67	78	56	92	70	93	66	88	62	85	67	90	67
25....	90	64	85	57	89	64	82	56	95	58	96	63	88	50	96	62	80	49	94	65	96	66	90	63	84	62	90	66
26....	92	65	87	61	95	68	92	56	100	64	100	74	.....	.....	100	72	88	56	97	75	99	76	98	64	92	68	95	76
27....	94	68	90	64	94	77	95	56	104	67	98	73	97	54	97	70	95	58	95	71	98	75	99	73	92	72	96	75
28....	94	72	92	65	93	76	92	66	97	63	96	75	96	67	95	73	98	60	94	74	96	76	93	74	92	72	94	78
29....	90	75	90	69	91	69	81	60	92	67	95	72	82	58	94	75	80	61	92	74	94	76	89	66	91	69	94	76
30....	81	67	81	59	82	67	88	53	88	65	90	61	87	41	82	64	85	43	78	67	82	68	84	56	78	65	81	70
Mean.	83.6	58.1	80.8	57.2	83.2	60.6	80.6	53.3	84.9	55.5	87.0	59.2	82.7[c]	51.9[c]	84.5	62.0	81.2	53.1	84.7	61.6	85.1	62.5	82.3	58.9	82.0	58.8	84.3	64.4

Date.	Valentine. Nebr.		Iowa.						Kansas.										Missouri.							
			Clarinda.§§		Sibley.§§		Sioux City.		Colby.		Concordia.		Salina.		Topeka.		Wakeeney.		Columbia.		Kansas City.		St. Louis.		Unionville.§§	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	76	59	84	63	74	55	76	59	84	45	87	63	98	68	85	70	90	60	90	66	84	71	94	71	80	64
2.....	86	58	86	49	79	44	83	52	83	59	83	54	82	56	84	61	86	60	87	60	85	63	87	68	82	50
3.....	70	56	81	50	75	48	74	59	80	54	83	62	86	61	80	64	87	55	87	60	83	65	86	71	81	56
4.....	83	58	84	49	76	54	77	57	80	54	85	62	92	61	87	62	90	63	87	63	87	63	86	62	80	52
5.....	88	61	87	60	86	57	85	62	86	54	86	64	86	52	87	65	90	61	92	70	87	65	88	68	86	56
6.....	70	48	81	62	67	60	72	57	84	57	80	61	82	60	86	66	76	60	93	68	86	69	92	71	82	64
7.....	61	44	62	52	66	43	65	48	71	45	67	56	78	59	67	50	78	49	75	52	72	49	77	53	62	60
8.....	69	48	67	43	67	39	64	44	65	44	65	50	61	48	61	47	64	50	67	48	64	48	69	48	64	40
9.....	69	46	71	41	68	39	68	46	60	45	66	52	66	51	66	52	57	48	69	45	66	49	68	47	65	41
10.....	72	50	74	42	73	40	72	46	59	46	71	47	76	49	73	48	68	49	75	47	74	48	75	48	70	39
11.....	73	56	81	41	78	47	78	51	65	53	79	50	78	51	77	50	74	56	78	43	76	55	78	54	75	41
12.....	81	57	84	44	80	52	80	56	75	55	82	57	81	51	81	52	74	58	84	47	81	59	83	61	78	46
13.....	67	57	86	48	84	52	83	60	81	50	83	62	85	52	84	56	88	57	86	54	84	60	86	63	80	51
14.....	92	51	94	44	90	56	93	63	90	50	96	67	97	63	91	67	96	60	90	63	89	68	89	64	86	56
15.....	92	68	99	63	94	60	96	69	94	58	97	73	99	61	96	70	97	67	96	68	93	71	94	69	92	62
16.....	90	65	98	62	93	64	90	66	90	60	95	68	97	68	92	67	93	63	96	67	92	70	95	73	93	66
17.....	93	64	98	57	96	60	94	66	89	56	94	71	95	64	93	69	94	64	98	68	94	75	98	75	95	61
18.....	91	69	96	59	93	62	92	72	89	59	92	70	96	67	94	69	90	63	98	67	93	75	97	77	94	65
19.....	88	63	91	61	90	68	87	72	82	62	84	68	83	67	87	67	85	63	95	68	88	71	97	76	90	68
20.....	76	64	93	69	79	65	76	68	82	59	89	67	93	68	92	70	80	64	94	72	92	74	94	77	93	67
21.....	81	59	83	66	84	59	85	66	80	57	82	67	96	68	80	69	82	63	93	69	84	70	96	74	80	68
22.....	86	59	83	61	83	56	82	60	83	57	85	63	88	65	79	66	85	60	84	68	75	68	86	67	73	62
23.....	93	64	88	63	85	53	85	62	90	57	92	64	91	65	93	60	92	62	86	67	90	64	84	70	86	61
24.....	88	60	87	68	83	57	83	68	80	59	94	72	86	65	83	65	97	65	85	69	83	64	87	70	90	66
25.....	86	53	91	64	90	67	86	68	94	57	98	68	103	78	92	68	100	62	91	68	92	69	89	76	86	64
26.....	93	60	92	75	90	64	93	70	98	67	99	78	100	76	94	75	100	74	94	74	94	76	93	74	90	62
27.....	101	76	94	69	92	67	95	75	97	70	98	75	100	77	96	73	96	72	95	75	95	76	98	78	92	66
28.....	96	77	95	70	93	72	93	76	91	69	95	76	98	76	95	74	93	72	95	76	95	79	98	82	93	71
29.....	87	64	94	71	90	72	92	70	92	67	93	75	94	76	93	75	94	70	97	75	93	78	99	82	92	72
30.....	86	54	84	72	80	67	81	69	81	57	81	67	83	70	80	70	85	65	94	73	87	73	97	78	90	70
Mean.....	82.9	58.9	86.3	57.9	82.6	56.6	82.7	61.9	82.5	56.1	86.0	64.3	88.3	63.3	84.9	63.9	86.0	61.2	88.4	63.7	85.3	66.2	88.7	68.2	83.3	58.9

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 7, LOWER MISSISSIPPI VALLEY.

ISAAC M. CLINE, District Editor.

GENERAL SUMMARY.

Moderate temperatures prevailed generally, except that from the 1st to 5th and 24th to 30th maximum temperatures were above 100° in many localities. The precipitation was generally light, except in the more elevated portions of the Colorado and New Mexico areas, but it was well distributed throughout the month. Snow, ranging from a trace to 13 inches, occurred in the mountains of Colorado.

The following table summarizes the chief features of meteorological interest in the various portions of the district:

States and portions of States lying within District No. 7.	Mean temperature.	Departure from the normal.	Mean precipitation.	Departure from the normal.	Greatest precipitation in 24 hours.	Mean snowfall.	Number of days.				Prevailing wind direction.
							With 0.01 inch or more.	Clear.	Partly cloudy.	Cloudy.	
Colorado	59.4	−0.7	2.94	+1.08	2.13	1.9	11	13	10	7	s.
New Mexico	65.5	−3.6	5.04	+4.60	5.00	0	11	9	13	8	sw.
Texas	74.0	−1.5	2.61	−0.78	3.60	0	6	13	9	8	s.
Kansas	74.5	+0.9	2.29	−1.90	3.25	0	7	12	13	5	s.
Oklahoma	76.0	+0.2	2.62	−1.44	2.55	0	7	12	11	7	s.
Missouri	75.6	+2.7	2.36	−2.38	3.05	0	5	20	7	3	s.
Tennessee	77.8	+1.7	1.60	−2.54	3.09	0	4	22	5	3	s.
Arkansas	77.0	+0.9	1.68	−2.53	4.93	0	4	16	11	3	sw.
Mississippi	77.9	−0.4	1.98	−2.01	3.25	0	5	20	7	3	s.
Louisiana	78.4	−1.5	3.72	−1.56	4.30	0	8	14	7	9	s.

TEMPERATURE.

Mean temperatures were 0.2° to 3.6° above the normal, except in Louisiana, the Colorado, New Mexico, and Texas areas, and parts of Arkansas, Oklahoma, and the western portion of the Kansas area, where there was a deficiency of 0.2° to 6.4°. Maximum temperatures of 100° or higher were reported from one or more stations in all States or parts of States in the district, except in the New Mexico area, where the highest reading was 98°. Minimum temperatures were generally below 50°, except in the southeastern portion, where they were between 50° and 60°. The highest temperature recorded, 106°, occurred at Coolidge, Kans., and at Cloudchief and Newkirk, Okla. Maximum readings of 104° were recorded in the Colorado, Missouri, and Tennessee areas. The lowest temperature recorded, 22°, occurred at Westcliffe, Colo., and a minimum reading of 26° was reported from Elizabethtown, N. Mex.

PRECIPITATION BY DRAINAGE AREAS.

Arkansas River and tributaries.—The precipitation was above the normal over the upper and below the normal over the lower portions of this drainage area. In Colorado the average from 36 stations was 2.92 inches, being about 1.1 inches above the normal. Over those portions of the Arkansas Valley proper that lie in Kansas and Oklahoma, the average from 44 stations was 2.26 inches, the deficiency being 1.8 inches. In New Mexico the average from 39 stations in the Canadian Valley was 4.77 inches, about 2.1 inches above the normal. Over those portions of the Canadian Valley that lie in Texas and Oklahoma the average from 21 stations was 2.08 inches, about 1.5 inches below the normal. The amounts from 19 stations in the Cimarron Valley averaged 3.17 inches, about 0.2 inch above the normal. Over the Verdigris Valley the precipitation was light, the average from 9 stations being 1.47 inches, about 3.3 inches below the normal. Over the Neosho Valley the average from 18 stations was 2.01 inches, about 3 inches below the normal. Below the Oklahoma-Arkansas line the precipitation from 14 stations in the Arkansas Valley proper averaged 1.46 inches, about 2.4 inches below the normal amount.

Red River and tributaries.—The precipitation was unevenly distributed over this drainage area. The average from 51 stations in those portions of the Red River Valley that lie in New Mexico, Texas, and Oklahoma was 3.64 inches, about 1 inch below the normal. Below the Texas-Arkansas line the average from 19 stations in the Red River Valley was 2.46 inches, about 1.9 inches below the normal.

Mississippi River south of St. Louis and small tributaries.—The precipitation was generally light for this season of the year over this drainage area. In the immediate Mississippi Valley the average from 40 stations was 2.14 inches, about 2.4 inches below the normal. The average from 23 stations in the Valley of the White was 1.50 inches, about 2.9 inches below the normal. Over the Yazoo Valley the average from 24 stations was 1.54 inches, about 2.4 inches below the normal. In the Valley of the Big Black the average was 3.37 inches, about 1.8 inches below the normal. In the Ouachita Valley the average from 17 stations was 2.99 inches, about 1.1 inches below the normal.

Louisiana coastal plain.—The precipitation was less than the normal over this drainage area, except at a few scattered stations, the average from 36 stations being 4.26 inches, about 1.5 inches below the normal.

RIVERS.

No material changes occurred in the stages of streams in Oklahoma.

The average stage in the Arkansas River at Little Rock was 2.3 feet, which is 9.3 feet below the normal June stage, being too low for navigation except on 4 days.

The White River was at a low stage throughout the month.

No material changes occurred in the stages of the Red River.

The Ouachita fell steadily during the month, and was 4.5 feet at Camden and 6 feet at Monroe on June 30.

There was a slight rise in the Mississippi River below Vicksburg early in the month, after which there was a steady fall.

PROBABLE CAUSE OF THE ELECTRIC STORMS IN WESTERN KANSAS.

By S. D. FLORA, Observer, Weather Bureau.

A plausible explanation of the electric storms in western Kansas (described in the Monthly Weather Review of June, 1912) is suggested in articles by Prof. W. A. Douglas Rudge, in Nature of March 13, 1913, and The London, Edinburgh, and Dublin Philosophical Magazine of April, 1913.

At Bloemfontein, South Africa, which has an elevation and climate similar in many respects to that of western Kansas, Prof. Rudge was able to demonstrate that the surface of the ground, which is of siliceous nature, as is the soil of western Kansas, was charged with positive electricity, and that during a dust storm the particles of dust were charged similarly, while the air itself was charged with negative electricity, sometimes giving rise to values exceeding 500 volts per meter.

Prof. Rudge was able to devise an electrical apparatus by which charges of both positive and negative electricity were obtained during a dust storm. The essential parts were a small insulated disk coated with radium and attached to a wooden rod about 2 meters in height, a 5-gallon petrol can with both ends removed, and a fine wire gauze fitted over one end, and a pair of insulated spheres to serve as dischargers.

The petrol can was placed upon an insulated rod about 20 centimeters above the ground, with the open end directed toward the onrushing dust. The radium disk was, of course, connected electrically with one spherical discharger and the can with the other.

A considerable portion of the dust blowing into the can was retained, and the charge of electricity it carried was given up and conducted to the insulated sphere. This was invariably found to be positive. The radium conductor, however, took the negative potential of the air, so that the two balls acquired opposite charges and "a torrent of sparks as continuous as that furnished by an induction coil passed between them." On some occasions sparks 1.5 centimeters (0.6 inch) in length were obtained "showing at least 40,000 volts when the apparatus was set up in the open veldt."

So far as known no actual measurement of the electrical charge carried by the dust and air during an electric storm of the kind described has ever been made in the Plains country of the United States. This is partly because the irregular occurrence of these disturbances makes it impossible to anticipate them and partly because well-equipped physical laboratories are lacking in the region affected.

When we stop to consider that these western plains disturbances occur during dry weather, and with at least moderately high winds which keep the air filled with flying dust, and are never accompanied by precipitation, it seems evident that it is the electrical charge carried up by the dust that accounts for the unusual phenomena seen at such times.

It will be recalled in this connection that the most pronounced evidences of the electrical phenomena in western Kansas were observed on windmills mounted on wooden towers and barbed-wire fences fastened to wooden posts. Each of these classes of objects would be partially insulated from the earth and exposed freely to the dust particles that carry the electrical charges.

It would certainly be worth while to install somewhere in the region where these storms occur an apparatus similar to that used by Prof. Rudge and give this theory a thorough test. From the broad scope of dry, dusty country over which the winds sweep east of the foothills of the Rockies it need not be at all surprising if voltages several times those observed at Bloemfontein might occur in western Kansas.

It is altogether possible that such an investigation would determine why all dust storms in the West are not accompanied by the pronounced electrical phenomena, and how well founded is the general belief that growing vegetation is often severely damaged by the electrical discharges.

TABLE 1.—*Climatological data for June, 1913. District No. 7, Lower Mississippi Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Colorado.																				
Buena Vista	Chaffee	7,955	13	55.0	− 0.2	80	15	33	2†	42	1.17	+ 0.73	0.55	0	6	15	6	9	s.	C. A. Short.
Calhan	El Paso	6,700	6	61.4	.....	87	26	41	6†	38a	1.55	.....	0.40	0	12	18a	9a	2a	se.	H. B. Rice.
Canon City	Fremont	5,343	25	67.4	− 1.6	94	27	45	2	42	2.14	+ 1.17	1.02	0	11	18	9	3	n.	U. S. Weather Bureau.
Colorado Springs	El Paso	6,098	33	61.0	− 2.4	85	26	43	10	35	1.84	− 0.04	0.68	0	14	7	17	6	se.	Colorado College.
Cripple Creek	Teller	9,396	12	.....	.....	.....	.....	.....	.....	.....	2.25	+ 0.42	0.82	T.	10	.....	.....	.....	.....	F. G. Willis.
Cuchara Camps	Huerfano	8,200	4	.....	.....	.....	.....	.....	.....	.....	2.08	.....	0.88	0	8	21	6	3	sw.	George A Mayes.
Eads	Kiowa	4,209	6	77.8	.....	104	28	55	10	25	2.30	.....	1.00	0	6	23	3	4	w.	Mrs. Mattie A. Kerr.
Fairview	Custer	9,500	4	.....	.....	.....	.....	.....	.....	.....	5.32	.....	1.50	6	7	13	8	9	e.	Elizabeth L. Grey.
Fremont Exper. Sta.	El Paso	8,850	3	51.4	.....	74	26†	34	8	30	3.91	.....	1.40	0	17	9	13	8	w.	U. S. Forest Service.
Garfield	Chaffee	9,510	3	.....	.....	.....	.....	.....	.....	.....	3.51	.....	0.76	T.	16	15	9	6	w.	Lloyd N. Felton.
Hamps	Elbert	5,400	20	62.2	− 0.4	89	26	37	13	42	1.23	− 0.57	0.50	0	7	14	7	9	s.	W. Hamp.
Hermit Lake	Custer	10,000	3	.....	.....	.....	.....	.....	.....	.....	5.87	.....	0.70	0	20	6	13	11	sw.	John E. Graham.
Hoehne (near)	Las Animas	5,700	21	66.6	+ 0.1	91	26	43	7†	40	2.58	+ 1.36	1.51	0	9	17	8	5	sw.	S. W. De Busk.
Holly	Prowers	3,380	18	72.4	+ 0.7	99	25	46	9	46	3.35	+ 1.17	1.53	0	6	24	3	3	s.	Holly Sugar Co.
La Junta	Otero	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.38	.....	1.82	0	11	10	19	1	s.	
Lake Moraine	El Paso	10,265	19	49.0	− 0.6	68	15†	31	10†	32	3.31	+ 0.94	0.63	T.	17	8	13	9	sw.	Clyde C. McReynolds.
Lamar	Prowers	3,592	23	72.2	− 1.1	102	26	46	9	44	2.90	+ 0.96	1.28	0	9	24	5	1	s.	J. T. Lawless.
Las Animas	Bent	3,899	45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	American Beet Sugar Co.
La Veta Pass	Costilla	9,000	3	.....	.....	.....	.....	.....	.....	.....	2.06	.....	0.92	0	11	2	18	10	w.	Clara M. Wright.
Leadville	Lake	10,248	17	49.1	− 0.4	73	27	28	12	40	1.32	+ 0.37	0.49	T.	11	6	17	7	s.	U. S. Weather Bureau.
Limon (near)	Elbert	5,360	6	63.4	.....	94	27	36	8†	44	1.50	.....	0.91	0	6	11	14	5	s.	F. L. Palmer.
Madrid	Las Animas	6,361	3	.....	.....	.....	.....	.....	.....	.....	4.10	.....	2.13	0	14	.....	.....	.....	.....	Thomas Sawers.
Marshall Pass	Saguache	10,846	10	.....	.....	.....	.....	.....	.....	.....	2.06	+ 0.86	0.78	13.0	6	10	12	8	.....	W. L. Williams.
Maxey	Baca	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.55	.....	1.05	0	6	18	4	8	s.	L. H. Alberti.
Monument	El Paso	7,200	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Forest Service.
North Lake	Las Animas	8,700	21	.....	.....	.....	.....	.....	.....	.....	4.87	+ 3.14	1.23	0	15	18	7	5	nw.	James W. Ingmire.
Pueblo	Pueblo	4,734	25	68.8	− 0.2	96	26	49	10	39	0.66	− 0.81	0.38	0	7	8	18	4	se.	U. S. Weather Bureau.
Rocky Ford (near)	Otero	4,177	24	69.6	− 0.5	95	26	43	13	40	2.87	+ 1.61	1.18	0	6	19	7	4	e.	P. K. Blinn.
St. Elmo	Chaffee	9,500	4	.....	.....	.....	.....	.....	.....	.....	2.77	.....	0.60	T.	14	10	9	11	sw.	Daniel Clark.
Salida	....do	7,035	14	59.4	− 0.7	84	27	36	14	44	4.48	+ 3.34	0.86	0	10	18	8	4	w.	M. D. L. Buell.
Santa Clara	Huerfano	8,252	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Lincoln G. Morris.
Sheridan Lake	Kiowa	4,065	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Howard Gamble.
Stonewall	Las Animas	8,000	7	.....	.....	.....	.....	.....	.....	.....	5.88	.....	1.10	0	16	8	5	17	w.	G. A. Storz.
Trinidad	....do	5,994	17	64.8	− 1.3	87	15†	45	8†	36	3.45	+ 1.15	1.75	0	13	2	20	8	sw.	Walter Dearden.
Two Buttes	Baca	4,100	2	69.1	.....	98	26	42	10	43	3.76	.....	1.04	0	8	16	8	6	sw.	N. G. Jones.
Two Buttes Reservoir	....do	4,250	.....	.....	.....	.....	.....	.....	.....	.....	2.81	.....	0.82	0	8	17	9	4	s.	Walter J. Krohne.
Victor	Teller	10,100	9	51.6	.....	73	26	31	11†	30	3.35	.....	0.77	T.	11	9	17	4	w.	Fred Jones.
Vilas	Baca	3,935	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss Esther Caldwell.
Westcliffe	Custer	7,864	19	54.0	− 0.9	82	15	22	7	53	4.03	+ 2.60	1.45	0	13	7	10	13	w.	U. S. Forest Service.
Winfield	Chaffee	9,765	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John G. Payne.
Woodman Sanatorium	El Paso	.....	2	61.1	.....	86	27	41	10	37	2.40	.....	0.82	0	12	9	15	6	se.	Woodman Sanatorium.
Wortman	Lake	11,250	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Lillie Wortman,
Yoder	El Paso	.....	2	.....	.....	.....	.....	.....	.....	.....	1.10	.....	0.33	0	10	18	7	5	se.	J. E. Bingham.
New Mexico.																				
Abbott	Mora	5,771	4	.....	.....	.....	.....	.....	.....	.....	5.69	.....	1.50	0	13	8	16	6	s.	Agent E. P. & S. W. R. R.
Albert	Union	4,700	23	69.4	− 3.7	94	26	49	3	37	6.57	+ 4.46	1.99	0	14	8	13	9	w.	Martin De Smet.
Aurora	Colfax	8,849	4	.....	.....	.....	.....	.....	.....	.....	8.76	.....	3.80	0	22	0	23	7	sw.	Miss J. Lucero.
Bell Ranch	San Miguel	4,500	14	70.6	.....	95	26	52	3	37	4.00	+ 2.03	1.69	0	11	13	11	6	sw.	C. M. O'Donel.
Black Lake	Colfax	8,348	4	.....	.....	.....	.....	.....	.....	.....	4.65	.....	3.25	0	11	2	23	5	se.	Ralph T. Martinez.
Cabeza	San Miguel	5,406	4	.....	.....	.....	.....	.....	.....	.....	6.12	.....	2.15	0	13	3	17	10	sw.	Agent E. P. & S. W. R. R.
Campana	....do	4,493	4	71.2	.....	98	15	52	4†	36	3.22	.....	0.82	0	10	12	12	6	sw.	Do.
Chacon	Mora	9,000	4	.....	.....	.....	.....	.....	.....	.....	5.34	.....	1.98	0	9	11	17	2	w.	Alfred Lucero.
Cimarron (near)	Colfax	6,385	9	61.6	.....	87	26	40	13	39	5.20	.....	2.60	0	15	6	16	8	s.	Capt. William French
Clayton	Union	5,178	8	66.1	.....	92	26	44	12	38	3.48	.....	1.71	0	11	7	18	5	sw.	Dr. N. C. Charleton.
Clovis	Curry	4,129	2	67.0	.....	97	26	53	9	35	5.39	.....	2.80	0	12	19	0	11	sw.	John H. Barry.
Cuervo	Guadalupe	4,849	4	72.4	.....	95	26†	52	10	36	2.95	.....	0.95	0	9	10	2	18	sw.	Agent E. P. & S. W. R. R.
Dawson	Colfax	6,396	4	64.2	.....	92	26	42	1†	42	8.31	.....	4.43	0	18	9	12	9	s.	Do.
Elizabethtown	....do	8,465	8	53.0	.....	79	15	26	30	51	2.56	.....	0.57	0	12	6	19	5	w.	Miss M. Carrington.
Folsom	Union	6,399	13	63.4	− 0.7	86	2†	43	2†	43	3.26	+ 1.26	1.20	0	10	6	16	8	sw.	David Rope.
Fort Union	Mora	6,835	53	58.9	− 6.3	81	25	37	12	38	11.64	+ 9.19	2.93	0	15	14	11	5	sw.	M. C. Needham.
Hayden	Union	4,444	3	71.6	.....	93	26	49	10	34	2.65	.....	0.57	0	10	13	8	10	s.	J. A. Bauer.
Hoosier Ranch	Mora	.....	2	.....	.....	.....	.....	.....	.....	.....	3.91	.....	2.03	0	11	12	13	5	sw.	W. H. Guthman.
Johnsons Park	Colfax	6,722	4	59.6	.....	81	26	39	2	39	5.17	.....	1.13	0	16	7	17	6	sw.	A. J. Meloche, jr.
Johnsons Ranch	Mora	5,784	1	.....	.....	.....	.....	.....	.....	.....	4.09	.....	1.24	0	11	6	19	5	.....	J. W. Johnson.
Kappus	Quay	4,010	2	.....	.....	.....	.....	.....	.....	.....	3.11	.....	0.96	0	6	.....	.....	.....	.....	Louis O'Brien.
Lake Alice	Colfax	7,160	4	.....	.....	.....	.....	.....	.....	.....	4.78	.....	1.32	0	7	.....	.....	.....	.....	Jesse Rickman.
Logan	Quay	3,851	7	72.6	.....	96	15†	47	7	41	3.18	.....	2.48	0	3	19	8	3	se.	John B. Renau.
Lykins (near)	Roosevelt	5,000	3	.....	.....	.....	.....	.....	.....	.....	7.89	.....	4.09	0	11	17	9	4	se.	J. G. Buchanan.
Maxwell (near)	Colfax	5,894	6	.....	.....	.....	.....	.....	.....	.....	5.86	.....	1.39	0	15	.....	.....	.....	.....	Dan N. Jackson.
Melrose	Curry	4,400	5	.....	.....	.....	.....	.....	.....	.....	8.24	.....	4.44	0	11	.....	.....	.....	.....	Dr. B. M. Porter.
Miami Ranch	Colfax	6,000	5	62.6	.....	87	26	39	5	43	5.58	.....	1.87	0	11	6	19	5	s.	Farmers' Development Co.
Mills (near)	Mora	5,985	2	.....	.....	.....	.....	.....	.....	.....	4.35	.....	0.89	0	13	8	4	18	sw.	J. E. LaRue.
Montoya	Quay	4,335	4	.....	.....	96	26	.....	.....	.....	4.15	.....	1.65	0	9	9	10	11	sw.	Agent E. P. & S. W. R. R.
Nara Visa	....do	4,225	7	69.8	.....	94	26	49	12	35	3.70	.....	1.01	0	8	13	6	11	s.	Willard Belknap.
Palo Verde	Mora	5,880	2	.....	.....	.....	.....	.....	.....	.....	3.82	.....	0.78	0	12	3	23	4	se.	G. R. Abernathy.
Pasemonte	Union	.....	4	.....	.....	.....	.....	.....	.....	.....	2.89	.....	0.86	0	8	6	19	5	w.	J. J. Heringa.
Pleasant View	Mora	.....	2	.....	.....	.....	.....	.....	.....	.....	4.62	.....	1.37	0	8	12	15	3	.....	R. W. Boulware.
Portales	Roosevelt	4,004	3	71.2	.....	94	1	54	4†	34	7.55	.....	5.00	0	10	4	19	7	se.	Portales Irrigation Co.
Raton	Colfax	6,660	15	61.0	− 3.8	84	27	41	11	35	8.35	+ 6.05	3.12	0	13	12	9	9	ne.	S. A. Wiseman.
Rociada	San Miguel	8,200	9	56.2	.....	80	16†	33	1†	45	.....	.....	.....	0	.....	14	8	8	w.	John P. Condon.
Rosebud	Union	4,500	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. A. Nachtrieb.
Roy	Mora	5,884	4	68.0	.....	88	13†	38	11	34	4.57	.....	0.85	0	14	8	18	4	sw.	Agent E. P. & S. W. R. R.
Roy (near)	....do	5,880	2	.....	.....	.....	.....	.....	.....	.....	5.02	.....	1.88	0	13	0	19	11	sw.	Baum Bros.
St. Vrain (near)	Curry	4,300	.....	.....	.....	.....	.....	.....	.....	.....	6.08	.....	1.85	0	10	.....	.....	.....	.....	S. A. Dow.
San Jon	Quay	4,200	6	72.0	.....	95	25†	53	12	37	1.37	.....	0.60	0	7	13	10	7	sw.	Jesse T. White.
Solano	Mora	5,622	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. M. Hughes.
Springer	Colfax	5,857	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agent A., T. & S. F. R. R
Taylor	....do	5,661	4	63.0	.....	94	26	40	4†	39	2.71	.....	0.58	0	11	6	24	0	w.	Agent E. P. & S. W. R. R
Texico (near)	Roosevelt	4,038	.....	.....	.....	.....	.....	.....	.....	.....	6.61	.....	1.51	0	11	.....	.....	.....	.....	A. L. King.
Trementina	San Miguel	5,000	5	.....	.....	.....	.....	.....	.....	.....	8.26	.....	2.65	0	16	12	14	4	se.	Miss Alice Blake.
Tucumcari	Quay	4,194	8	72.8	.....	97	2	45	12	42	3.05	.....	1.33	0	6	12	5	13	sw.	John F. Seaman.
Valley	Union	5,000	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss M. L. Payne.
Vance (near)	....do	.....	2	.....	.....	.....	.....	.....	.....	.....	4.27	.....	2.26	0	9	16	7	7	sw.	C. E. Anderson.
Vermejo Park	Colfax	7,600	8	58.0	.....	84	28	36	11	42	3.07	.....	0.82	0	11	9	7	14	nw.	H. W. Adams.
Wagon Mound (near)	Mora	6,300	4	61.4	.....	86	26	40	2†	41	5.91	.....	1.00	0	18	7	7	16	sw.	Guy L. Barnes.

TABLE 1.—*Climatological data for June, 1913. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.					Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
Texas.																				
Amarillo	Potter	3,676	21	70.2	− 1.8	93	2	51	10	34	2.32	− 0.67	0.76	0	14	17	8	5	sw.	U. S. Weather Bureau.
Archer City	Archer		2								3.22		0.74	0	10	12	12	6	s.	Charles H. Thuman.
Arthur City	Lamar	590	21								3.94	− 0.77	1.17	0	5	15	4	11		C. A. Lowrey.
Bonham	Fannin	566	9	78.8		100	2	55	12†	33	4.01		1.23	0	8	17	4	9	s.	H. M. Norman.
Canadian	Hemphill	2,339	6	75.0		99	25	41	9	34	3.25		1.85	0	12				s.	R. M. Hibbard.
Childress	Childress	1,869	20								4.89	+ 2.11	2.20	0	6	5[a]	12[a]	12[a]	s.	George Baker.
Chillicothe	Hardeman	1,406	5								1.84		0.65	0	9					C. W. Underwood.
Clarendon	Donley	2,719	8	73.5		99	6	52	9	37	5.81		3.60	0	11	4	15	11	se.	Whitfield Carhart.
Clarksville	Red River	442	13	78.2[a]	− 1.6	100	2	54	12	32	2.05	− 3.03	1.75	0	2	14	12	4		J. W. O'Neill.
Claude	Armstrong	3,397	10								T.	− 1.95	T.	0	0					Ft. W. & D. C. Ry.
Dalhart	Dallam	3,998	8	71.0		97	26	49	10†	37	1.29		0.54	0	6	14	0	16	sw.	W. D. Griggs.
Denison	Grayson		13								2.10	− 1.61	1.40	0	6	8	1	21	s.	J. L. Wilson.
Finley	Bowie		3								0.40		0.40	0	1	26	0	4	s.	Robert L. Smith.
Henrietta	Clay	915	21	78.8	− 0.9	102	1†	57	12	35	2.64	− 0.88	0.90	0	8	12	11	7	s.	C. K. Brown.
Jefferson	Marion										0.60		0.50	0	2	25	1	4	se.	J. C. Kistenmacher.
Memphis	Hall	2,067	8			99	1†				4.12		2.50	0	4	23	0	7	sw.	Ft. W. & D. C. Ry.
Miami	Roberts	2,743	10	75.0		98	24†	52	10	34	3.94	+ 0.93	2.90	0	10	9	16	5	s.	J. E. Kinney.
Ochiltree	Ochiltree		10								1.97	− 1.08	0.91	0	4					S. J. Allen.
Panhandle	Carson	3,450	4								1.05		1.00	0	3	8	14	8		J. Sid O'Keefe.
Paris	Lamar	592	24	77.8	− 0.9	98	2	53	12	35	1.62	− 1.85	0.65	0	9	9	12	9	s.	Robert A. Miller.
Plemons	Hutchinson		6	73.0		101	25	49	9	37	1.79		0.49	0	8	13	10	7	se.	C. S. Solomon.
Quanah	Hardeman	1,563	11	76.8	− 3.1	101	1	56	9†	34	1.24	− 2.71	0.42	0	5	13	0	17	s.	William H. Crawford.
Ringo Crossing	Hopkins		3								3.75		1.60	0	5	14	10	6	s.	H. J. Palmer.
Romero	Hartley	4,056	3	70.2		96	26	47	12	38	2.33		0.90	0	7	15	10	5	s.	R. S. Chamberlain.
Sherman	Grayson	745	20	79.4	+ 0.4	98	1	58	10†	30	1.20	− 2.59	0.65	0	3	12	8	10	s.	R. A. Gibbs.
Stratford	Sherman	3,699	1	71.2		98	26	48	10	36	1.48		0.62	0	6	5	18	7	s.	J. W. Elliott.
Tulia	Swisher	3,501	15	71.5	− 2.6	97	1	52	9	40	4.18	+ 1.50	1.51	0	12	6	17	7	se.	Lou Mulhall.
Wellington	Collingsworth		1								4.32		2.00	0	5					J. D. Camp.
Wichita Falls	Wichita	958	21								2.70	− 1.08	0.70	0	6					J. C. Mytinger.
Winfield	Titus		3								4.21		1.50	0	8	13	14	3	s.	J. B. Newberry.
Kansas.																				
Alden	Rice	1,684	3	74.3		97	26	48	8†	30	3.17		1.18	0	12	16	8	6	s.	Geo. Klady.
Anthony	Harper	1,329	16	76.7		100	27	50	8	39	1.47	− 1.65	0.71	0	9	5	19	6	sw.	R. H. Beebe.
Ashland	Clark	1,951	25	74.7	− 0.5	98	1†	49	9	37	4.65	+ 1.11	1.78	0	12	9	16	5	se.	C. W. Carson.
Burlington	Coffey	1,010	20	75.4	+ 1.6	100	1†	45	11†	41	4.08	− 1.29	1.91	0	5	6	21	3	s.	O. E. Sanford.
Chanute	Neosho	940	9	76.8		97	27	48	12	36	0.87		0.42	0	4	8	18	4	s.	C. W. Brown.
Cimarron	Gray	2,700	1	71.8		100	25	47	9†	31	3.51		0.97	0	10	16[a]	9[a]	4[a]	s.	C. C. Isely.
Coffeyville	Montgomery	747	3	76.4		96	1†	50	11†	36	1.23		0.60	0	5	14	16	0	s.	A. F. Briggs.
Coldwater	Comanche	2,090	16	73.3	− 1.5	96	1	48	9	28	4.47	+ 1.01	1.69	0	10	10	14	6	s.	J. L. Stanley.
Columbus	Cherokee	898	23																	O. E. Skinner.
Coolidge	Hamilton	3,348	16	71.8	− 0.3	106	26	49	8	53	3.46	+ 1.25	1.17	0	7	6	19	5	se.	W. R. Padley.
Cottonwood Falls	Chase	1,234	9	74.8		99	27	45	12	36	2.09		1.05	0	6	15	10	5	s.	E. B. Greene.
Council Grove	Morris	1,234	4	74.8		98	15	47	11	33	2.32		1.41	0	9	12	13	5	sw.	J. P. Blackledge.
Cunningham	Kingman	1,680	29	73.9	− 1.0	94	25†	48	8	30	4.45	+ 0.73	1.06	0	11	7	16	7	s.	W. H. Morton.
Dodge City	Ford	2,513	39	72.5	− 0.6	97	25	48	9	30	2.02	− 1.30	1.19	0	12	10	15	5	se.	U. S. Weather Bureau.
Eldorado	Butler	1,291	11	75.4		96	27	50	8	35	1.69		0.55	0	9	13	12	5	s.	W. Y. Miller.
Ellinwood	Barton	1,790	38	74.6	+ 1.7	97	26	48	8	33	4.91	+ 0.83	3.25	0	11	4	21	5	s.	Martin Musil.
Emporia	Lyon	1,138	32	74.0	+ 0.4	98	27	46	10	36	1.13	− 3.67	0.89	0	2	18	8	4	s.	W. H. Boyles.
Eureka	Greenwood	1,079	17	74.4		99	27	40	10	40	1.31	− 3.29	0.45	0	7	13	14	3	se.	Mrs. T. C. Peffer.
Fall River	do.	925	17	75.8	+ 3.2	99	26	40	12	40	0.25	− 5.09	0.20	0	2	19[c]	6[c]	2[c]	s.	J. McDaniel.
Fargo	Seward		3								1.46		0.64	0	6	4	21	5	s.	N. B. Swink.
Fredonia	Wilson	975	10	76.2		98	21	49	11	32	0.99		0.55	0	7	14	6	10	s.	B. W. Holmes.
Garden City	Finney	2,836	24	73.0	− 0.2	102	25	47	9	43	3.28	− 0.10	0.80	0	10	10	14	6	s.	B. F. Stocks.
Greensburg	Kiowa	2,235	6	73.3		98	26	46	10	35	1.54		0.26	0	10	19[c]	2[c]	6[c]	s.	C. C. Raymond.
Grenola	Elk	1,116	25	74.6	+ 1.0	98	27	44	12	39	2.15	− 2.63	1.23	0	6	9	14	7	sw.	W. H. Lawyer.
Howard	do.	1,112	6	75.4		99	27	45	12	37	1.32		0.94	0	3	18	9	3	s.	J. W. Eby.
Houghton	Stevens		9	72.4		102	25	47	9	40	3.17		2.08	0	10	10	16	4	s.	E. R. Kimzey.
Hutchinson	Reno	1,535	23	75.8	+ 2.2	99	27	46	8	37	2.03	− 4.35	0.72	0	6	16	6	8	s.	Sheridan Ploughe.
Independence	Montgomery	800	39	75.4	− 0.2	96	1†	46	11†	37	2.75	− 2.25	1.22	0	7	14	6	10	s.	F. L. Kenoyer.
Iola	Allen	984	7	75.0	+ 1.7	97	27	44	10	34	4.26	− 0.47	3.22	0	7	15	10	5	s.	U. S. Weather Bureau
Irene	Hamilton	3,440	3	70.6		102	26	42	13	41	4.56		0.93	0	11	6	11	13	s.	N. M. Herbig.
Jetmore	Hodgeman	2,268	12																	James Aikin.
Kingman	Kingman	1,504	5	74.5		96	1	49	8	34	3.24		0.65	0	11	9	19	2	sw.	B. B. Anawalt.
La Crosse	Rush	2,061	11	74.2	+ 2.3	99	25	47	8	35	2.49	− 1.32	1.08	0	8	11	15	4	se.	Rodney Torrey.
Lakin	Kearney	2,993	23	71.6	− 0.5	104	25	44	9	52	1.82	− 0.58	0.54	0	6	12	15	3	s.	C. H. Longstreth.
Larned	Pawnee	2,090	28	74.4		98	25†	47	8	33	4.21	+ 0.26	2.32	0	10	15	11	4	s.	H. H. Wolcott.
Lebo	Coffey	1,138	27	75.5	+ 1.9	101	27	46	10	35	2.60	− 2.90	1.57	0	4	14	11	5	s.	J. J. Bowman.
Le Roy	do.	990	4								1.07		0.58	0	5	15	2	13	s.	F. W. Schmitt.
Liberal	Seward	2,843	6	73.6		103	25	47	9	35	1.34		0.55	0	13	13	5	12	se.	Dr. R. T. Nichols.
Macksville	Stafford	2,032	24	73.8	+ 1.1	98	25	48	9†	33	1.64	− 2.17	0.48	0	11	13	6	11	sw.	Mrs. Nelia Poling.
McPherson	McPherson	1,495	24	75.8	+ 2.1	100	26	48	8	35	0.94	− 4.43	0.82	0	4	14	9	7	sw.	Ed. F. Haberlein.
Madison	Greenwood	1,074	12	73.2	+ 0.2	100	27	40	12	45	2.84	− 2.02	1.80	0	4	4[a]	22[a]	3[a]	se.	C. A. David.
Marion	Marion	1,310	20	76.8	+ 2.9	100	27	48	12	36	0.71	− 3.95	0.25	0	6	7	21	2	sw.	Jerry Forney.
Medicine Lodge	Barber	1,259	20	74.2	− 0.4	98	27	48	9	38	3.12	− 0.49	0.57	0	13	11	14	5	s.	S. P. Garrison.
Minneola	Clark	2,558	1								4.24		2.10	0	11	9	14	7	s.	A. P. Reece.
Mount Hope	Sedgwick	1,410	16								2.08	− 2.26	0.95	0	7	10	15	5	s.	H. N. Renfrew.
Neosho Rapids	Lyon	1,092	8								0.95		0.85	0	2	23	1	6	s.	W. H. McMullen.
Ness City	Ness	2,260	20								1.41	− 2.09	0.41	0	8					J. K. Barnd.
Newton	Harvey	1,454	16	75.8	+ 2.0	99	27	48	8	33	2.17	− 2.11	1.59	0	4	15	11	4	s.	H. A. Brush.
Norwich	Kingman	1,496	17	76.0	+ 1.2	98	27	50	8	34	2.15	− 1.11	0.61	0	10	6	20	4	se.	N. I. Farris.
Oswego	Labette	899	19	75.4	+ 0.2	96	1†	48	10†	35	0.56	− 4.85	0.27	0	4	13	14	3	sw.	Jas. M. Currigan.
Pittsburg	Crawford	934									1.00		0.50	0	4	14	5	11	s.	A. L. Scott.
Plains	Meade	2,766	3	72.2		100	25	43	9	33	4.38		2.60	0	7	12	13	5		E. J. Henning.
Pratt	Pratt	1,950	18	74.2	− 0.1	97	25	47	8	36	2.79	− 0.91	1.00	0	9	7	22	0	s.	T. J. Arnold.
Richfield	Morton		2	71.8	− 1.5	101	25†	47	9	46	1.75	− 0.58	0.66	0	7					M. J. Allen.
Rome	Sumner	1,218	27	75.4	+ 1.0	99	1	50	12	39	3.22	− 0.90	1.95	0	7	12	11	7	s.	D. M. Adams.
Sedan	Chautauqua	834	28	75.3	+ 0.3	99	1†	45	12	39	1.54	− 3.27	0.80	0	4	16	11	3	s.	A. Y. Buckles.
Toronto	Woodson	1,040	16	75.6	+ 1.8	103	27	44	12	42	2.38	− 2.55	1.98	0	2	19	4	7	s.	M. A. Webb.
Ulysses	Grant	3,050	22	72.6	− 0.7	103	26	43	11	46	3.53	+ 0.68	2.14	0	5	19	7	4	sw.	T. W. Marshall.
Walnut	Crawford	940	11	75.8	+ 2.5	99	27†	44	10	36	0.38	− 5.64	0.19	0	3	20	8	2	sw.	R. C. Harlan.
Wellington	Sumner	1,225	17	76.9	+ 2.9	102	27	51	8	32	1.29	− 3.44	0.50	0	7	10[c]	15[c]	2[c]	s.	E. O. G. Kelly.
Wichita	Sedgwick	1,377	26	75.0	+ 0.7	94	27	50	8	28	1.36	− 3.39	0.41	0	9	11	13	6	s.	U. S. Weather Bureau.
Winfield	Cowley	1,124	19	76.2	+ 1.3	98	26	51	12	34	1.31	− 3.71	0.58	0	5	23	3	4	s.	M. B. Light.
Yates Center	Woodson	1,068	34	75.0	+ 1.8	101	27	44	12	41	1.61	− 3.28	1.46	0	5	14[c]	11[c]	2[c]	s.	J. W. Tipton.

TABLE 1.—*Climatological data for June, 1913. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oklahoma.																				
Ada	Pontotoc	1,001	5	76.4	.....	99	2	54	13	33	0.77	.....	0.26	0	7	11	13	6	s.	H. P. Sugg.
Altus	Jackson	1,410	----	76.3	.....	101	1	56	9†	39	2.60	.....	0.54	0	11	10	10	10	se.	U. S. Weather Bureau.
Alva	Woods	1,350	8	73.8	.....	99	27	50	9	32	4.36	.....	1.32	0	9	8	16	6	.....	S. A. Stech.
Apache	Caddo	1,255	3	75.2	.....	102	1	51	12	42	4.31	.....	1.59	0	9	11	15	4	sw	G. D. Teeter.
Arapaho	Custer	1,575	19	76.8	+ 0.4	102	1	54	9†	44	2.93	− 1.12	1.38	0	9	6	16	8	s.	J. C. Brower.
Ardmore	Carter	872	11	78.4	+ 0.9	104	2	55	10†	35	3.88	+ 0.31	1.95	0	12	10	9	11	s.	H. T. Nisbett.
Bartlesville	Washington	687	5	78.2	.....	99	27	49	11†	34	1.26	.....	0.45	0	4	16	3	11	s.	Dr. A. P. Owens.
Beaver	Beaver	2,500	16	75.5	+ 0.2	104	25	48	10	35	2.32	− 0.87	0.52	0	11	12	12	6	sw.	W. C. Frazer.
Beaver	Comanche	1,350	7	72.5	.....	98	1	46	9	43	5.35	.....	1.52	0	7	13	8	9	s.	Mrs. Frank Rush.
Cache	Hughes	713	8	.....	.....	.....	.....	.....	.....	.....	1.13	.....	0.88	0	5	15	0	15	s.	Thomas Purcell.
Calvin	Lincoln	865	11	77.7	+ 1.2	97	----	52	----	37[e]	1.84	− 2.14	0.62	0	5	8[e]	1[e]	18[e]	s.	Chas. L. Kern.
Chandler	Comanche	1,150	7	74.0	.....	98	1†	56	9†	38	6.08	.....	1.20	0	10	8	14	8	s.	Squire Humble.
Chattanooga	Grady	1,091	11	75.5	− 2.	102	1	52	13	39	4.90	+ 1.35	1.75	0	6	12	6	12	s.	Anna W. O'Neil.
Chickasha	Pawnee	800	11	78.0	+ 2.7	103	1	51	12	39	1.77	− 2.56	0.74	0	7	10	18	2	sw.	C. C. Breed.
Cleveland	Washita	1,400	11	77.0	+ 0.4	106	1	53	12	41	2.40	− 1.06	0.96	0	9	11	11	8	se.	J. P. Stutzman.
Cloud Chief	Rogers Mills	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. W. Blackburn.
Crawford	Bryan	643	11	78.0	+ 0.6	102	2	52	12	38	1.30	− 2.69	0.40	0	10	16	8	6	s	Nelson Houk.
Durant	Jackson	1,456	6	77.2[d]	.....	101	----	54	----	35	0.91	.....	0.33	0	6	6[d]	10[d]	10[d]	se.	T. W. Lanham.
Eldorado	Beckham	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. J. Carlile.
Elk City	Canadian	1,400	21	76.6	− 0.9	104	1	53	9	36	4.79	+ 1.35	2.40	0	8	12	12	6	s.	Rose E. Walker.
El Reno	Garfield	1,269	11	75.8	0.0	104	1	52	9†	44	2.67	− 0.47	1.48	0	6	15	10	5	s.	Uri B. Worcester.
Enid	Beckham	2,058	8	75.5[e]	.....	102	1	50	7	40	2.64	.....	1.10	0	8	8[e]	11[e]	6[e]	s.	A. W. Hanes.
Erick	McIntosh	566	----	77.2	.....	97	2†	44	12	40	0.15	.....	0.15	0	1	12	11	7	s.	R. Uhl Brown.
Eufaula	Ottawa	839	13	76.4	+ 1.9	98	27†	44	11	38	2.35	− 3.96	0.95	0	7	10	18	2	s.	C. W. Prier.
Fairland	Muskogee	556	8	.....	.....	.....	.....	.....	.....	.....	0.90	.....	0.68	0	3	18	3	9	e.	John T. Welsh.
Fort Gibson	Tillman	1,293	6	77.3	.....	101	----	56	----	38[a]	3.73	.....	1.02	0	11	11	12	7	se.	B. B. Bradley.
Frederick	Blaine	1,546	1	75.4	.....	103	1	52	9	36	2.47	.....	1.02	0	12	17	7	6	sw.	O. P. Ruth.
Geary	Texas	3,300	2	72.4	.....	100	26	48	10	32	3.65	.....	1.39	0	11	9	13	4	s.	S. W. Black.
Goodwell	Logan	1,000	20	76.9	− 0.4	101	1	50	10	40	2.60	− 0.55	0.75	0	8	15	14	1	s.	S. E. Snyder.
Guthrie	Texas	3,133	3	.....	.....	.....	.....	.....	.....	.....	1.45	.....	1.00	0	5	12	15	3	se.	A. L. Mordt.
Guymon	Pittsburg	700	14	78.8	+ 0.8	97	2	50	12	35	0.80	− 4.17	0.40	0	2	21	6	3	.....	Frank Webber.
Hartshorne	Carter	900	19	75.3	− 2.4	101	2	51	12	44	5.85	+ 2.53	1.31	0	10	9	20	1	se.	C. H. Heald.
Healdton	Alfalfa	1,396	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. G. McCall.
Helena	Kingfisher	1,166	18	75.6[f]	− 0.4	102	----	53	----	39	5.86	+ 2.10	1.55	0	8	7[f]	12[f]	5[f]	s.	Mrs. M. C. Parks.
Hennessey	Kiowa	1,396	10	76.5	.....	104	1	53	9	40	6.05	.....	2.55	0	11	10	9	11	s.	J. M. Pate.
Hobart	Hughes	900	12	76.9	+ 1.4	99	1	51	12	35	0.73	− 3.63	0.32	0	5	22	6	2	s.	Eula Rutherford.
Holdenville	Texas	3,038	7	72.6	.....	104	----	47	----	35[b]	1.42	.....	0.52	0	6	8[b]	1[b]	19[b]	s.	H. N. Kelly.
Hooker	Choctaw	.....	----	77.6	.....	100	2	53	11	34	2.38	.....	0.81	0	10	17	6	7	nw.	C. C. Montgomery.
Hugo	Cimarron	4,200	5	71.4	.....	98	26	47	10†	41	2.24	.....	0.85	0	6	4	17	9	sw.	Dr. C. W. Meyers.
Hurley	McCurtain	474	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. L. Henderson.
Idabel	Grant	1,062	19	76.2	− 0.1	105	1	50	10	45	3.72	− 0.62	1.10	0	7	15	13	2	s.	T. E. Beck.
Jefferson	Cimarron	4,000	12	69.6	− 2.1	96	26	48	10†	38	1.71	− 0.20	0.52	0	12	12	11	7	se.	Ralph H. Guy.
Kenton	Kingfisher	1,046	16	76.6	− 0.2	103	1	50	12	41	3.34	− 0.50	1.60	0	12	6	18	6	s.	J. C. Cross.
Kingfisher	Comanche	1,111	----	77.1	.....	104	1	55	9†	41	6.77	.....	1.87	0	10	10	4	16	se.	Frank M. Head.
Lawton	....do	.....	----	.....	.....	.....	.....	.....	.....	.....	3.82	.....	0.88	0	10	.....	.....	.....	.....	W. F. Stuart.
Lawtonka Lake	Pittsburg	698	16	78.9	.....	99	27	52	12	37	0.71	− 4.13	0.44	0	4	14	9	7	s.	Wm. Noble.
McAlester	Greer	1,585	20	76.8	− 1.0	102	1	55	9†	39	1.09	− 3.59	0.25	0	8	16	1	13	se.	F. D. Dodson.
Mangum	Stephens	1,292	12	76.4	+ 0.3	102	1	55	10†	37	5.10	− 0.52	1.80	0	6	14	6	10	se.	Wm. B. Anthony.
Marlow	Harper	.....	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. C. Gray.
May	Lincoln	1,030	14	80.2	+ 3.6	103	1	48	10	43	1.68	− 2.03	0.88	0	3	19	6	5	s.	Dr. J. H. Baugh.
Meeker	Muskogee	.....	----	78.2	.....	97	2†	53	11	28	0.07	.....	0.04	0	3	16	7	7	se.	U. S. Weather Bureau.
Muskogee (1)	....do	614	14	79.2	+ 3.6	98	20	52	11	31	T.	− 3.76	T.	0	0	13	9	8	s.	J. Harry Randall.
Muskogee (2)	Woodward	.....	5	75.3	.....	102	2	49	9	40	2.67	.....	0.81	0	7	14	7	9	s.	Thos. Martin.
Mutual	Caddo	1,500	7	75.6	.....	102	1	54	9†	38	1.75	.....	0.84	0	8	5	21	4	s.	R. N. Schooling.
Neola	Kay	1,149	15	77.4	+ 1.4	106	1	51	9	37	4.08	− 0.86	1.39	0	7	14	7	9	s.	P. H. Albright & Co.
Newkirk	Cleveland	1,171	18	76.2	− 0.8	101	1	53	10†	40	4.45	+ 0.38	2.36	0	9	5	22	3	s.	S. E. Boyd.
Norman	Muskogee	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.44	.....	0.39	0	2	14	5	11	s.	J. E. Walker.
North Muskogee	Dewey	1,854	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oakwood	Blaine	1,194	8	76.0	.....	105	----	53	----	39[b]	3.15	.....	0.76	0	10	15	12	3	s.	Dr. L. H. Murdock.
Okeene	Okfuskee	.....	1	77.7	.....	98	27	50	10†	37	1.41	.....	0.65	0	4	18	7	5	s.	S. F. Smith.
Okemah	Oklahoma	1,247	23	75.6	− 0.1	99	1	53	10	32	3.82	+ 0.75	1.54	0	8	11	6	13	s.	U. S. Weather Bureau.
Oklahoma	Okmulgee	752	8	77.5	.....	97	1†	49	12	35	0.45	.....	0.25	0	2	18	7	5	s.	J. L. Maynard.
Okmulgee	Garvin	880	12	76.8	+ 0.4	101	1	49	12	41	1.82	− 1.79	0.73	0	6	23	2	5	s.	A. M. Foss.
Pauls Valley	Osage	918	12	75.6	0.0	99	1	42	13	40	3.05	− 1.96	1.30	0	7	13	14	3	s.	R. C. Block.
Pawhuska	Noble	920	14	77.2	+ 1.7	103	1	54	8†	38	1.75	− 2.54	1.16	0	7	14	14	2	s.	S. E. Laird.
Perry	Rogers Mills	2,200	9	72.5	.....	99	1	50	4†	41	3.92	.....	1.50	0	11	10	12	8	sw.	Roy Kagay.
Rankin	Johnston	796	10	77.4	.....	103	1	52	12	37	2.09	.....	0.55	0	8	17	4	9	s.	R. G. Guptill.
Ravia	Lincoln	900	19	78.2	+ 2.1	99	----	47	----	35[e]	0.46	− 3.46	0.15	0	7	.....	.....	.....	.....	Thos. P. Myers.
Sac and Fox Agency	Pottawattomie	1,041	11	76.0	+ 0.4	100	1	51	11†	37	2.50	− 2.81	0.93	0	7	5	21	4	se.	Mrs. Kate Chatman.
Shawnee	Kiowa	1,356	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. W. C. Woodard.
Snyder	Payne	880	20	76.6	+ 0.8	100	1	51	12	39	1.88	− 1.81	0.76	0	6	16	7	7	s.	Will P. Watson.
Stillwater	Cherokee	790	----	75.8	.....	96	28†	45	12	39	0.88	.....	0.64	0	4	.....	.....	.....	.....	G. P. Hardy.
Tahlequah	Tulsa	700	24	76.8	.....	98	27	50	12	34	0.75	− 3.66	0.27	0	6	17	11	2	s.	Dr. H. M. Hutchinson.
Tulsa	Craig	698	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Insane Hospital.
Vinita	Wagoner	588	16	77.6	+ 1.2	98	----	50	----	32[b]	0.93	− 2.92	0.30	0	5	7[b]	18[b]	3[b]	s.	Moss Hatfield.
Wagoner	Garfield	1,258	16	75.6	− 1.1	103	1	49	12	42	4.22	+ 0.64	1.38	0	10	13	15	2	se.	R. C. Shades.
Waukomis	Jefferson	988	2	77.6	.....	102	1†	55	12	38	3.22	.....	0.68	0	10	13	11	6	s.	B. A. Swindler.
Waurika	Custer	1,639	11	75.4	+ 0.2	103	1	52	9†	40	2.24	− 1.43	0.90	0	9	10	8	12	s.	Eugene Forbes.
Weatherford	Muskogee	479	14	80.0	+ 3.4	105	2	47	12	43	0.60	− 3.45	0.35	0	2	5	24	1	w.	B. D. Boulineau.
Webbers Falls	Kay	945	9	77.1	.....	104	1	53	6†	38	1.72	.....	0.80	0	6	13	13	4	sw.	John F. De Jarnette.
Whiteagle	Woodward	1,900	10	74.2	.....	96	1†	49	9	31	5.31	.....	1.85	0	12	3	19	8	s.	Fred A. Baird.
Woodward	Ottawa	.....	----	.....	.....	.....	.....	.....	.....	.....	2.68	.....	0.90	0	5	16	0	14	s.	Henry Hicks.
Wyandotte																				
Missouri.																				
Belle	Maries	.....	22	76.0[e]	+ 3.4	100	15	44	12	41	2.56	− 2.32	0.90	0	4	10[f]	11[f]	3[f]	s.	A. J. Wofford.
Birchtree	Shannon	1,200	20	75.0	+ 2.4	97	5†	47	12	35	2.34	− 2.40	1.04	0	3	24[b]	3[b]	1[b]	.....	V. H. Kirkendall.
Cape Girardeau	Cape Girardeau	346	9	.....	.....	.....	.....	.....	.....	.....	0.50	.....	0.30	0	3	24	2	4	s.	D. L. Albert.
Cardwell	Dunklin	.....	2	77.6	.....	102	28	46	11	40	2.39	.....	1.13	0	5	15[h]	7[h]	0[h]	s.	E. M. Perry.
Caruthersville	Pemiscot	.....	22	79.8	+ 3.2	104	18†	49	12	41	1.25	− 2.71	0.45	0	3	27	2	1	e.	H. E. Averill.
Cassville	Barry	.....	3	72.3	.....	94	27†	36	12	43	2.06	.....	1.15	0	3	26	3	1	s.	Mrs. Zuma Bloomer.
Dean	McDonald	.....	15	72.5	− 0.6	97	27†	33	10	42	0.98	− 5.19	0.42	0	5	20[b]	3[b]	5[b]	.....	H. E. Dean.
Doniphan	Ripley	440	10	76.4	+ 2.2	103	30	45	11	40	3.12	− 1.49	1.50	0	7	20	7	3	sw.	W. W. Martin.
Fruit City	Reynolds	.....	----	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. C. Walton.
Gano	Dent	.....	10	75.4	+ 2.8	101	18	40	11	41	4.32	− 0.34	2.51	0	6	23	4	3	s.	A. C. Leech.

TABLE 1.—*Climatological data for June, 1913. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
Missouri—Continued.																				
Goodland	Iron	900	9	71.7	.....	97	18†	37	11	44	5.46	.....	3.05	0	6	15	12	3	s.	F. M. Adams.
Hollister	Taney	850	4	74.5	.....	96	27†	48	11	36	1.00	.....	0.50	0	4	25	0	5	sw.	W. P. Chapmann.
Ironton	Iron	925	36	73.5	+ 1.5	101	18	35	11	48	1.88	— 3.20	0.54	0	7	18	7	5	s.	W. H. Delano.
Jackson	Cape Girardeau	458	23	77.2	+ 3.4	103	18†	42	9	43	1.14	— 3.10	0.45	0	6	15	7	8	s.	L. M. Bean.
Joplin	Jasper	979																		Joplin High School.
Koshkonong	Oregon	911	13	78.8	+ 5.5	100	30	54	8†	30	2.04	— 2.55	0.84	0	6	16	13	1	ne.	J. W. Hitt.
Lamar	Barton	964	34	76.6	+ 2.7	98	17†	44	11	37	1.67	— 3.23	0.93	0	5	16	9	5	sw.	E. H. Adams.
Marble Hill	Bollinger	420	20	76.3	+ 2.5	102	18†	40	10†	33	0.84	— 3.48	0.30	0	4	17	10	3	s.	A. F. Hendricks.
Mountaingrove	Wright	1,490	15	74.2	+ 3.3	95	1†	44	10	32	4.84	+ 0.40	2.60	0	5	19	8	3	s.	Missouri Fruit Exp. Sta.
Mount Vernon	Lawrence	1,480	35	74.9	+ 1.6	98	30	43	12	38	2.85	— 2.47	1.40	0	7	14	14	2	sw.	J. R. White & Son.
Neosho	Newton	1,023	31	74.0	+ 0.3	96	27†	40	11†	41	4.47	— 1.06	1.65	0	7	23	4	3	sw.	W. O. Buck.
New Madrid	New Madrid	285	20								1.27	— 2.98	0.50	0	4	22	2	6	s.	Miss Josie Smith.
Oakfield	Franklin	793	22	77.7	+ 3.9	102	18	45	9	34	1.92	— 2.71	1.58	0	6	10	14	6	sw.	E. E. Steines.
Rolla	Phelps	1,139	33	78.0	+ 6.1	99	18	41	9	36	2.75	— 1.54	1.50	0	4	.....	.....	.....	.....	Prof. P. J. Wilkins.
Springfield	Greene	1,350	26	74.2	+ 1.9	92	1	47	10	25	2.71	— 2.48	1.76	0	6	22	7	1	s.	U. S. Weather Bureau.
Kentucky.																				
Blandville	Ballard	445	32	77.2	+2.3	99	19†	50	12	32	0.54	—4.29	0.21	0	7	15	12	3	sw.	E. W. Horr.
Tennessee.																				
Arlington	Shelby	.....	31	78.2	+ 1.9	101	26†	47	12	43	0.89	— 3.29	0.52	0	5	24	5	1	s.	A. Thomas B. Etheridge.
Bolivar	Hardeman	450	30	77.2	+ 1.5	99	19†	48	12	37	1.79	— 2.30	0.95	0	3	29	0	1	s.	Miss Mary A. Smith.
Brownsville	Haywood	361	31	79.4	+ 3.0	104	27	49	12	41	1.27	— 2.89	0.43	0	7	24	5	1	ne.	Miss Hattie N. Moses.
Covington	Tipton	311	30	77.4	+ 0.9	100	26	50	12	35	1.15	— 2.86	1.08	0	3	27	0	3	s.	James S. Ruffin.
Dyersburg	Dyer	310	30	78.2	+ 1.3	100	27	51	11	32	2.60	— 1.31	1.60	0	3	26	0	4	se.	Miss Martha A. Sinclair.
Jackson	Madison	450	23	78.0	+ 1.5	104	28	45	12	44	1.73	— 3.01	1.01	0	3	.....	.....	.....	.....	Shelby A. Robert.
Kenton	Obion	325	11	76.6	+ 1.4	100	18†	45	12	42	3.48	— 0.02	3.09	0	2	14	13	3	s.	George S. Martin.
Memphis	Shelby	409	42	78.0	+ 0.3	96	27	56	11	25	0.97	— 3.40	0.52	0	5	18	7	5	sw.	U. S. Weather Bureau.
Milan	Gibson	440	31	77.3	+ 1.4	99	20†	48	12	37	0.63	— 3.76	0.23	0	6	19	4	7	e.	Orlando F. Cantwell.
Trenton	do	345	33	77.2	+ 2.6	102	28	44	12	42	1.70	— 2.54	1.30	0	2	22	6	2	sw.	F. L. Dennison.
Union City	Obion	360	18	78.6	+ 2.8	103	18†	46	12	43	1.34	— 2.60	0.46	0	6	15	14	1	s.	J. R. Oliver.
Arkansas.																				
Alicia	Lawrence	.....	9	76.0	.....	98	30	47	11†	37	1.45	.....	0.55	0	4	18	10	2	sw.	McCullough & Guelck.
Amity	Clark	250	21																	J. W. Campbell.
Arkansas City	Desha	145	29								1.41	— 2.76	1.07	0	4					W. C. Blundell.
Batesville	Independence	271	14								0.96	— 3.35	0.50	0	5					Lelia I. Teter.
Bee Branch	Van Buren	.....	20	78.4	+ 2.5	102	30	48	12	40	2.75	— 0.37	2.10	0	4	14	12	4	.....	J. E. Scanlan.
Bentonville	Benton	1,303	8	74.3	+ 0.2	95	27	45	11	34	0.99	— 3.57	0.84	0	6	18	9	3	s.	U. S. Weather Bureau.
Bergman	Boone	1,324	15	75.8	+ 2.9	101	1†	43	11	42	0.46	— 3.72	0.33	0	3	23	5	2	sw.	John T. Maxey.
Black Rock	Lawrence	259	10								0.79	.....	0.21	0	5	.....	.....	.....	.....	S. J. Howe.
Brinkley	Monroe	226	31	78.5	+ 1.4	101	20†	47	12	42	0.67	— 2.75	0.63	0	2	21	6	3	s.	H. L. D. Whitson.
Calico Rock	Izard	361	9								0.52	.....	0.52	0	1					J. W. Wray.
Camden	Ouachita	158	28	78.0	0.0	100	20	50	12	40	6.34	+ 1.46	4.93	0	4					R. H. Quarterman
Centerpoint	Howard	470	13	76.8	— 1.5	96	2	52	12	34	2.87	— 1.85	2.00	0	5	14	11	5	se.	J. M. Huddleston.
Clarendon	Monroe	171	9								1.37	.....	0.42	0	7	.....	.....	.....	.....	Mrs. B. E. Bishop.
Conway	Faulkner	309	29	78.4	+ 1.6	102	30	50	13	39	1.15	— 2.85	0.65	0	4	23	5	2	s.	G. H. Burr.
Corning	Clay	293	20								2.52	— 1.54	1.00	0	6	10	17	3	s.	Jacob Brobst.
Dardanelle	Yell	330	26	76.8	.....	97	28†	50	13	36	1.60	— 2.30	0.80	0	6	.....	.....	.....	.....	A. Bernard.
Dodd City	Marion	1,175	31	75.4	— 0.6	98	30	43	10	41	1.35	— 3.05	0.60	0	4	18	11	1	sw.	Neal Dodd.
Dumas	Desha	.....	2								0.80	.....	0.42	0	2	24	5	1	.....	Lawrence Waterman.
Dutton	Madison	.....	12	71.8	+ 0.6	96	27†	39	12	42e	0.76	— 5.04	0.60	0	2	15	15	0	s.	J. M. Ricketts.
Eldorado	Union	265	9	77.8	.....	98	20	51	12	35	2.11	.....	0.98	0	6	.....	.....	.....	.....	Jeff. J. Babb.
England	Lonoke	.....	6	77.6	.....	100	18†	48	12	38	2.74	.....	1.00	0	5	.....	.....	.....	.....	J. C. Chenault.
Eureka Springs	Carroll	1,465	12	76.2	+ 2.7	99	27†	43	11	40	1.79	— 4.46	0.62	0	6	12	17	1	sw.	George W. Nichoalds.
Fayetteville	Washington	1,451	25	75.4	+ 1.7	97	27†	45	12	37	1.05	— 3.79	0.32	0	6	10	17	3	sw.	University of Arkansas.
Fordyce	Dallas	.....	3	77.8	.....	96	19†	52	12	33	3.82	.....	2.07	0	4	5	16	9	n.	J. B. Atkinson.
Fort Smith	Sebastian	481	31	78.7	+ 1.9	98	2	54	12	31	0.64	— 3.36	0.41	0	4	10	11	9	e.	U. S. Weather Bureau.
Fraziers Turnpike	Pulaski	.....	2																	R. E. Brown.
Fulton	Hempstead	264	27								2.30	— 1.35	1.00	0	3	.....	.....	.....	.....	B. C. Logan.
Georgetown	White	200	1								0.14	.....	0.14	0	1	.....	.....	.....	.....	Wm. N. Harris.
Hardy	Sharp	643	15	76.8	+ 2.2	101	19†	46	11	36	2.78	— 1.12	1.45	0	5	10	10	10	sw.	C. A. Caywood.
Helena	Phillips	182	42								1.48	— 2.68	1.25	0	3	.....	.....	.....	.....	J. B. McLeod.
Hot Springs	Garland	600	21	78.8	+ 2.1	99	30	54	13	34	2.51	— 2.50	1.60	0	4	26	3	1	sw.	Army and Navy Gen. Hosp
Huttig	Union	85	6	77.6	.....	97	3†	54	11†	35e	1.42	.....	0.67	0	5	.....	.....	.....	.....	C. A. Berry.
Jonesboro	Craighead	345	18	78.8	+ 0.9	103	28†	50	11†	40	0.20	— 3.97	0.07	0	5	14	14	2	s.	Benedictine Sisters.
Junction	Union	.....	20	78.8	+ 1.1	100	2	51	12	38	.....	.....	.....	0	...	23	4	3	sw.	J. A. Lowderback.
Lake Farm	Jefferson	195	6	78.2	.....	99	19	46	14	44	1.23	.....	0.33	0	6	20	6	4	.....	G. L. Spellman.
Lewisville	Lafayette	262	9																	F. W. Youmans.
Little Rock	Pulaski	357	34	78.2	+ 1.0	96	30	56	11	27	2.05	— 2.04	1.61	0	5	17	10	3	sw.	U. S. Weather Bureau.
Lutherville	Johnson	775	14	75.8	+ 0.8	99	30	46	20	39	1.17	— 3.57	0.55	0	6	11	19	0	sw.	W. R. Hentschel.
Malvern	Hot Spring	277	30	78.4	+ 1.1	99	29†	51	12	36	2.00	— 1.56	0.62	0	5	.....	.....	.....	.....	Miss L. C. Smith.
Mammoth Spring	Fulton	512	9	76.3	.....	102	28†	42	11	47a	1.70	.....	0.80	0	4	.....	.....	.....	.....	F. Wallick.
Marked Tree	Poinsett	229	8																	Chapman & Dewey Lum. Co
Mena	Polk	1,100	22	76.3	+ 0.5	94	2†	53	12	29	4.02	— 0.42	2.15	0	5	15	10	5	sw.	E. W. St. John.
Newport	Jackson	231	30	78.6	+ 1.3	102	30	48	11	40	1.48	— 2.32	0.75	0	4	.....	.....	.....	.....	Chas. Sprigg.
Pine Bluff	Jefferson	215	30	78.4	— 0.7	100	20	51	12	35a	1.07	— 3.06	0.46	0	6	.....	.....	.....	.....	J. H. Hudson.
Pocahontas	Randolph	.....	20	77.0	+ 1.9	.....	.....	46	12	40e	2.88	— 1.00	1.70	0	5	14	14	2	.....	Benedictine Sisters.
Pond	Benton	1,250	16	73.8	+ 0.5	95	27†	40	11	37	0.69	— 5.13	0.33	0	3	6	21	3	sw.	A. F. Stevens.
Portland	Ashley	122	5	77.8	.....	102	29	52	11†	39	1.53	.....	0.91	0	4	.....	.....	.....	.....	T. A. Corson.
Prescott	Nevada	327	29	77.1	— 1.3	98	30	51	12	36	1.75	— 1.55	1.55	0	4	.....	.....	.....	.....	Mrs. G. Cummings
Rogers	Benton	1,385	22	73.6	+ 0.3	94	29†	46	12	33	2.58	— 2.00	0.73	0	6	16	12	2	s.	Carl A. Starck.
Springbank	Miller	182	6								0.79	.....	0.68	0	2	.....	.....	.....	.....	G. Field.
Stuttgart	Arkansas	495	26	77.8	+ 0.5	100	20	49	13	36	0.86	— 3.45	0.49	0	3	8	20	2	s.	H. A. Buerkle.
Subiaco	Logan	1,050	16	78.0	+ 1.0	100	27†	55	10†	32b	1.10	— 3.42	0.58	0	3	24	2	4	sw.	New Subiaco Abbey.
Swain	Newton	2,300	3	72.4	.....	92	30	47	10†	28b	1.11	.....	0.81	0	3	7	20	3	s.	George Paxton.
Texarkana	Miller	332	30	79.1	+ 0.5	99	4†	51	14	40	1.18	— 2.32	0.40	0	5	.....	.....	.....	.....	D. E. Moore.
Warren	Bradley	304	18	78.8	+ 0.4	100	20	51	11†	37	0.95	— 3.38	0.40	0	3	.....	.....	.....	.....	W. J. Savage.
Whitecliffs	Little River	206	9								1.97	.....	1.52	0	3	.....	.....	.....	.....	F. B. Lane.
Wiggs	Garland	.....	20	75.0	— 1.1	98	30	47	12†	38	3.45	— 0.99	1.68	0	6	14	15	1	sw.	S. D. Jester.
Wynne	Cross	250	5	77.8	.....	101	20	48	12	36	1.81	.....	1.52	0	3	.....	.....	.....	.....	John Seals.

TABLE 1.—*Climatological data for June, 1913. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Mississippi.																				
Anguilla	Sharkey	107	5	78.8	.....	99	19†	50	11	37	0.85	.....	0.40	0	3	17	11	2	se.	E. W. Cook.
Austin	Tunica	200	17	78.1	+ 0.8	100	28	48	12	40	1.87	− 2.08	0.90	0	4	20	6	4	nw.	H. J. Irvine.
Batesville	Panola	230	26	78.4	+ 0.4	102	19	49	12	39	1.88	− 2.17	1.10	0	4	27	1	2	w.	J. M. Cox.
Big Creek	Calhoun	.....	2	77.7	.....	100	28	49	13	39	1.93	.....	1.30	0	3	21	8	1	s.	J. P. Havens.
Canton	Madison	228	23	78.0	− 0.6	100	19	50	11	35	1.36	− 2.76	0.50	0	7	19	10	1	se.	Dr. G. W. Smith-Vaniz.
Charleston	Tallahatchie	.....	3	76.7	.....	101	19	46	12	41	2.00	.....	1.30	0	2	21	4	5	s.	W. B. Burke.
Clarksdale	Coahoma	177	6	78.8	.....	99	19	50	12†	38	1.70	.....	1.04	0	5	23	3	4	s.	A. C. Tuttle.
Cleveland	Bolivar	160	1	.....	.....	.....	.....	.....	.....	.....	2.58	.....	1.63	0	7	18	0	12	.....	W. W. Boone.
Coffeeville	Yalobusha	241	4	.....	.....	.....	.....	.....	.....	.....	1.85	.....	0.76	0	6	18	11	1	sw.	C. K. Bailey.
Corinth	Alcorn	470	25	77.0	+ 1.6	102	28	48	12	40	1.26	− 2.84	0.90	0	6	21	3	6	se.	M. A. Candler.
Crenshaw	Panola	187	4	.....	.....	.....	.....	.....	.....	.....	0.70	.....	0.35	0	4	18	6	6	s.	Rodgers Woollard.
Duck Hill	Montgomery	.....	14	77.6	+ 0.4	102	18	46	12	46	1.61	− 1.40	0.90	0	3	15	14	1	s.	W. H. Eskridge.
Edwards	Hinds	222	26	78.8	− 1.3	98	19†	52	11	35	4.10	− 0.17	2.70	0	8	24	6	0	s.	E. F. Farr.
Fayette	Jefferson	270	12	76.3	− 1.2	96	19†	47	13	38	5.20	+ 0.36	2.95	0	7	13	14	3	sw.	T. L. Darden.
Greenville	Washington	126	26	80.2	+ 0.7	99	20†	53	12	36	1.56	− 1.27	0.91	0	4	25	2	3	sw.	M. G. Harbison.
Greenwood	Leflore	140	13	79.3	+ 1.3	102	19	52	11†	38	0.86	− 2.86	0.63	0	4	27	1	2	sw.	J. H. Stephen.
Grenada	Grenada	194	4	.....	.....	.....	.....	.....	.....	.....	0.70	.....	0.40	0	2	.....	.....	.....	.....	W. F. Hallam.
Hernando	De Soto	391	25	78.5	+ 1.1	101	19	52	11	38	0.51	− 3.23	0.50	0	2	24	3	3	s.	W. F. Wood.
Hickory Flat	Benton	435	4	.....	.....	.....	.....	.....	.....	.....	2.83	.....	1.53	0	3	25	5	0	sw.	H. Powell.
Holly Springs	Marshall	600	26	78.0	+ 0.4	99	19	52	11	28	3.54	− 0.71	1.83	0	6	24	1	5	sw.	L. B. Mosby.
Kosciusko	Attala	430	23	77.7	− 1.9	100	19	49	11	37	1.65	− 2.37	1.25	0	6	22	6	2	ne.	E. L. Lucas.
Malone	Marshall	.....	4	.....	.....	.....	.....	.....	.....	.....	3.28	.....	1.05	0	6	.....	.....	.....	.....	M. J. Wilkins.
Moorhead	Sunflower	117	....	77.0	.....	101	19	47	12†	41	1.27	.....	0.72	0	6	19	9	2	.....	H. S. Gove.
Natchez	Adams	206	25	76.1	− 3.8	99	1	53	13	35	1.86	− 2.20	1.31	0	4	22	4	4	se.	Catherine Garrity.
Pontotoc	Pontotoc	475	24	76.8	+ 0.2	97	28	49	12	34	1.81	− 2.31	0.90	0	4	20	9	1	se.	Dr. C. W. Bolton.
Port Gibson	Claiborne	116	25	76.8	− 2.0	96	19†	50	13	37	4.84	+ 0.25	1.43	0	10	17	7	6	e.	H. H. Crisler.
Rosedale	Bolivar	143	5	78.4	.....	98	26	50	11†	35	0.65	.....	0.30	0	3	26	0	4	sw.	T. J. Murray.
Shoccoe	Madison	.....	10	78.0	− 0.6	100	19	54	12†	32[d]	.....	.....	.....	0	.....	.....	.....	.....	se.	J. C. Pitchford.
Suffolk	Franklin	.....	12	78.1	− 0.7	101	19	51	13	37	2.14	− 2.12	1.05	0	9	12	12	6	s.	Prof. Geo. H. Kent.
Swan Lake	Tallahatchie	148	8	.....	.....	.....	.....	.....	.....	.....	0.25	.....	0.16	0	2	26	2	2	.....	Dr. S. D. Robinson.
Tchula	Holmes	130	8	78.6	.....	101	19	50	11	35	1.06	.....	0.55	0	3	13	17	0	s.	Dr. M. P. Winkler.
University	Lafayette	502	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. J. H. Dorroh.
Utica	Hinds	287	9	78.3	.....	99	19	52	12†	36	5.58	.....	3.25	0	9	16	4	10	.....	Dr. J. B. Dudley.
Vicksburg	Warren	247	42	78.4	− 0.1	97	19	54	11	27	0.46	− 4.03	0.22	0	7	12	13	5	e.	U. S. Weather Bureau.
Water Valley	Yalobusha	300	24	77.8	+ 0.3	100	19	49	13	38	1.70	− 3.33	0.75	0	4	23	6	1	sw.	Miss Loula Erikson.
Woodville	Wilkinson	560	20	77.4	− 2.5	98	19	53	13	33	3.73	− 0.72	2.25	0	10	12	18	0	.....	James E. Lee.
Yazoo City	Yazoo	116	19	78.2	− 1.8	98	19†	50	11†	37	T.	− 4.27	T.	0	0	28	0	2	sw.	W. H. Courts.
Louisiana.																				
Abbeville	Vermilion	18	25	79.5	− 0.4	96	5	57	13	34	5.90	− 0.20	2.35	0	14	12	9	9	sw.	Hon. C. J. Edwards.
Alexandria	Rapides	77	25	78.0	− 1.6	97	2†	56	12†	34	2.06	− 3.57	0.82	0	5	12	3	15	s.	Miss Nellie Graham.
Amite	Tangipahoa	130	25	77.9	− 1.7	99	18†	51	13	36	1.20	− 4.41	1.00	0	2	24	2	4	n.	Miss. L. M. Wentz.
Antioch	Claiborne	.....	1	78.6	.....	100	20	50	12	42[b]	1.69	.....	0.50	0	8	22	0	8	s.	W. L. Anglin.
Avoca Island	St. Mary	9	2	.....	.....	.....	.....	.....	.....	.....	5.02	.....	.....	.....	.....	.....	.....	.....	.....	J. N. Pharr & Sons.
Baton Rouge	East Baton Rouge	60	25	78.4	− 1.3	96	19	55	13	29	3.66	− 1.23	1.30	0	9	21	4	5	ne.	Elmo M. Bott.
Burnside	Ascension	20	13	79.1	− 0.2	97	18†	53	14	35[e]	3.95	+ 1.27	0.80	0	9	10	7	13	sw.	C. S. McFarland.
Burrwood	Plaquemines	1	25	78.4	− 1.9	90	18†	64	12	17	2.50	− 1.67	1.92	0	3	14	8	8	ne.	Graham Meyers.
Cades	St. Martin	.....	3	79.5	.....	95	1†	58	13	29	2.86	.....	0.55	0	11	11	13	6	s.	C. E. Smedes.
Calhoun	Ouachita	180	25	76.5[f]	− 2.3	96	18†	51	12	33[k]	5.15	+ 0.83	1.56	0	8	19	8	3	s.	North Louisiana Exp. Sta.
Cameron	Cameron	6	20	74.4	− 6.1	94	19	53	13	32	2.68	− 3.08	0.70	0	10	9	17	4	sw.	Adolph Bruckert.
Carrollton	Orleans	7	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Loyola College.
Cheneyville	Rapides	67	25	78.7	− 0.8	101	3	53	14	37	3.01	− 2.70	1.25	0	9	15	6	9	e.	Walter I. Tanner.
Cinclare	West Baton Rouge	.....	3	78.8	.....	98	19	56	12†	31	5.50	.....	1.70	0	6	5	15	10	se.	Cinclare Central Factory.
Clinton	East Feliciana	113	25	77.4	− 1.7	99	19	52	13	36	0.61	− 4.61	0.15	0	6	18	1	11	n.	John A. White.
Colliston	Morehouse	65	12	78.9	− 0.8	99	1	54	12	39	5.35	+ 1.05	2.43	0	10	17	3	10	s.	J. B. Reilly.
Covington	St. Tammany	39	21	78.8	− 1.1	100	19	53	13	39	2.54	− 2.89	0.91	0	5	19	8	3	s.	Cecile P. Champagne.
Dodson	Winn	.....	4	78.4	.....	98	19†	54	12†	38	1.53	.....	0.98	0	4	12	13	5	s.	J. P. Lucas.
Donaldsonville	Ascension	33	25	80.4	+ 0.5	98	2†	62	11†	28	4.52	− 1.59	2.20	0	7	21	1	8	s.	John F. Park.
Dutchtown	....do	.....	2	.....	.....	.....	.....	.....	.....	.....	1.81	.....	0.58	0	7	15	11	4	.....	Picard & Geismar (Ltd.).
Farmerville	Union	177	25	76.1[e]	− 2.8	95	20	50	11	32[e]	2.18	− 2.02	1.15	0	4	19	8	3	s.	W. P. Chandler.
Florence	Vermilion	.....	1	80.0	.....	95	19	60	10	20	7.81	.....	4.30	0	7	12	13	5	sw.	White Lake Land Co.
Franklin	St. Mary	10	21	80.0	− 0.9	98	19	58	13	31	4.86	− 1.40	1.81	0	15	17	6	7	s.	Miss J. M. Bonney.
Franklinton	Washington	.....	3	78.0	.....	101	19	48	13	40[b]	0.89	.....	0.30	0	4	7	6	17	sw.	Herbert R. Babington.
Grand Cane	De Soto	302	19	72.0	− 6.7	97	1†	43	14	44	1.24	− 3.57	0.80	0	5	14	4	12	s.	G. Foster Provost.
Grand Coteau	St. Landry	93	25	78.6	− 1.0	98	19	57	13	31	4.96	− 1.28	1.90	0	13	19	8	3	e.	St. Charles College.
Hammond	Tangipahoa	44	21	78.5	− 1.4	99	18	52	13	36	5.93	+ 0.65	3.30	0	5	16	8	6	sw.	C. C. Carr.
Houma	Terrebonne	.....	25	81.8	− 1.6	94	19	63	22	26	7.50	+ 1.59	1.60	0	13	13	0	17	se.	Prof. John M. Foote.
Jena	La Salle	.....	2	78.0	.....	98	19†	50	1	46[e]	5.18	.....	3.15	0	5	12	12	6	se.	C. Estus Wilbanks.
Jennings	Calcasieu	30	16	79.0	− 0.8	96	19	58	13	31	5.52	+ 0.62	1.02	0	11	9	7	14	se.	J. F. Buch.
Laark	Morehouse	.....	1	80.1	.....	99	2†	61	11	32	2.59	.....	1.62	0	4	24	0	6	.....	P. M. Donelly.
Lafayette	Lafayette	36	25	79.0	− 0.9	96	19	56	13†	31	3.04	− 3.61	0.92	0	11	15	5	10	e.	J. J. Davidson.
Lake Charles	Calcasieu	22	25	76.7	− 3.1	97	1	56	11†	36	6.30	+ 0.08	1.83	0	10	21	1	8	e.	George Boudreaux.
Lakeside	Cameron	9	12	78.6	− 2.0	94	1†	62	12	22	4.77	− 0.66	2.20	0	5	14	10	6	s.	Miss L. J. Nunemacher.
La Rose (near)	La Fourche	.....	2	74.5	.....	94	21	56	17	33	2.44	.....	0.70	0	11	10	9	11	s.	Louisiana Delta Farms Co.
Lawrence	Plaquemines	6	22	80.0	− 1.2	99	18	61	12	28	6.47	+ 0.75	1.79	0	13	14	11	5	se.	Hon. H. C. Warmoth.
Liberty Hill	Bienville	.....	25	80.6	+ 0.7	103	29	52	12†	42	3.15	− 1.56	2.50	0	4	22	3	5	s.	Dr. E. A. Crawford.
Logansport	De Soto	192	9	.....	.....	.....	.....	.....	.....	.....	1.80	.....	0.79	0	5	16	5	9	s.	Mrs. Bettie M. Dennis.
Melville	St. Landry	45	25	79.5	0.0	100	2†	59	14†	36	1.69	− 2.93	0.93	0	4	13	8	9	ne.	Chas. B. McNeil.
Minden	Webster	194	25	77.1	− 2.4	100	20	51	14	38	1.89	− 2.03	1.10	0	5	19	7	4	e.	Miss Ethel Fort.
Monroe	Ouachita	82	25	78.8	− 0.9	97	2	54	12	31	2.64	− 2.19	1.78	0	8	13	5	12	sw.	Kathryn Key.
Morgan City	St. Mary	14	7	.....	.....	.....	.....	.....	.....	.....	2.96	.....	0.93	0	8	8	8	14	ne.	Virgil E. Kinsey.

TABLE 1.—*Climatological data for June, 1913. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
***Louisiana*—Continued.**																			
Napoleonville	Assumption		4	80.3	.....	99	18†	59	13	29	11.15	.....	2.85	0	14	6	2	22	.....	Leon Godchaux Co. (Ltd.).
Newellton	Tensas	.....	6	76.6[d]	.....	94	19	53	10	32[i]	6.75	.....	2.25	0	6	.....	.....	.....	.....	John D. Fultz.
New Iberia	Iberia	15	25	78.9	− 1.3	93	19	59	13	25	4.00	− 2.61	1.55	0	8	10	14	6	ne.	Mrs. John A. Gebert.
New Orleans (1)	Orleans	51	42	78.8	− 0.8	97	18	59	11	22	5.58	− 0.58	2.99	0	14	7	14	9	ne.	U. S. Weather Bureau.
New Orleans (2)	....do	.....	25	79.3	− 1.3	100	19	56	13†	35	1.69	− 4.80	0.44	0	11	6	8	16	s.	Sugar Experiment Station.
Opelousas	St. Landry	.....	21	75.8	− 6.4	92	20	52	13	32	2.24	− 3.27	0.57	0	7	19	0	11	e.	Andrew Moresi.
Paradis	St. Charles	83	2	.....	.....	.....	.....	.....	.....	.....	3.55	.....	0.80	0	7	.....	.....	.....	.....	R. E. Boyce.
Pearl River	St. Tammany	.....	7	.....	.....	.....	.....	.....	.....	.....	4.08	.....	1.66	0	8	24	4	2	e.	Geo. F. Bancks.
Plain Dealing	Bossier	29	21	78.2	− 0.3	98	20†	50	12	45	3.06	− 1.96	1.06	0	7	17	0	13	se.	Leon Sanders.
Rayne	Acadia	268	21	79.4	− 1.2	95	4†	56	13	31	2.27	− 3.64	0.80	0	10	15	2	13	e.	A. P. McNeil.
Reserve	St. John Baptist	44	12	76.7	− 4.3	103	4	53	11	43	3.96	− 0.14	1.14	0	7	13	10	7	.....	Leon Godchaux Co. (Ltd.).
Richland Plantation	Rapides	.....	1	77.4	.....	94	30	55	14	28	2.64	.....	1.21	0	9	22	0	8	s.	A. B. Pendleton.
Robeline	Natchitoches	.....	17	77.8	− 1.0	98	20	50	14	41	4.78	+ 1.16	1.80	0	8	17	2	11	s.	Anna R. McCook.
Ruston	Lincoln	147	18	80.9	+ 1.6	99	20†	55	10†	33	4.65	+ 0.03	3.05	0	6	3	6	21	s.	Andor M. Larsen.
St. Francisville	West Feliciana	312	10	79.6	.....	102	20	56	14	32	2.93	.....	0.91	0	11	13	15	2	s.	G. W. Newman.
Schriever	Terrebonne	115	21	78.9	+ 1.3	96	5†	56	13	34	4.15	− 2.88	1.30	0	9	16	9	5	e.	William H. Gautreaux.
Shreveport	Caddo	17	42	79.0	− 0.6	98	20	59	11	28	3.23	− 0.35	2.13	0	5	16	8	6	se.	U. S. Weather Bureau.
Simmesport	Avoyelles	249	7	.....	.....	.....	.....	.....	.....	.....	4.13	.....	1.75	0	9	13	2	15	ne.	Cassius T. Leigh.
Southern Univ. Farm	Jefferson	42	16	.....	.....	.....	.....	.....	.....	.....	3.50	− 1.89	1.15	0	12	10	9	11	se.	F. L. St. Martin.
Sugartown	Calcasieu	.....	20	79.0	− 0.7	94	20	58	14	30	4.44	− 0.88	1.45	0	8	9	20	1	.....	G. W. Richardson.
Tallulah	Madison	.....	6	78.3	.....	97	3†	51	12	33	0.69	.....	0.42	0	5	.....	.....	.....	.....	Neal T. Halt.
Walker	Livingston	247	3	77.6	.....	100	20†	49	11†	47	4.00	.....	2.00	0	6	.....	.....	.....	.....	Westly Milton.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for June, 1913. District No. 7, Lower Mississippi Valley.*

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Colorado.																																
Buena Vista	Arkansas	T.				T.	T.	T.		.42		.55						.02			T.			.08	.08				.02	T.		1.17
Calhan	Big Sandy	.38	.02		.05		.04	.19	.04	.30		.10	.07							.01		.25	T.	.10								1.55
Canon City	Arkansas		.05	.03	.01				1.02	.14	.22	.29		T.							.09	.16	.12		.01							2.14
Colorado Springs	Fountain	.07	T.	.03	T.			T.	.54	.14	.21	.52	.09						.01	.03	.13	.01		.03				.02	.01			1.84
Cripple Creek	Oil Creek				.27		.02	.14	T.		T.	.82							.05	.61		.15	.11	T.	T.							2.25
Cuchara Camps	Cucharas					.06		.32	.20	.88						.21	.11				.06			.24					.06	.02		2.08
Eads	Big Sandy	1.00	.10	.25								.25	.45						T.	.25												2.30
Fairview	St. Charles							.40		.80		1.50							.68			.40		.06		.48						5.32
Fremont Exp. Sta	Fountain	.12	T.	.09	.04	T.	.03	.73	.10	.08	.86	.03	.08			T.	T.		.11	.02	1.40	T.	.03	.15	.02				.02			3.91
Garfield	L. Arkansas	.06	.02	.03	T.			.10	.10	.76	.20	.70	.26				.06	.21	.40	.12	T.	T.	.34	.03					.12			3.51
Hamps	Big Sandy	.05		.50							.02	.25	.08					.03				.30										1.23
Hermit Lake	Grape Creek	.08			.09		.08	.20	.25	.30	.33	.70	.60	.37			.15	.14	.38	.46	.05	.40	.35	.05					.43	.46		5.87
Hoehne (near)	Purgatoire		T.		.26		.15	.20	.07		1.51	.02							T.	.02		.23						.09				2.58
Holly	Arkansas		1.53									.48	.15	.96						.16										.07		3.35
La Junta	do	.62	.02	.27			1.82			.02		.12	.15			T.				.03	.69	.09					.05					3.88
Lake Moraine	Fountain	.27			.06		.07	.04	.44	.10	.40	.63	.14				.04	.14		.10	.55	.08	.02	.21	.02							3.31
Lamar	Arkansas	1.28			.08							.22	.35	.50						.13	.05	.19							.10			2.90
Las Animas	do																															
La Veta Pass	Cucharas	.30		.12		T.		.06	.10	.80	.12		T.			.10	T.		.06	T.	T.	.16	.08			T.		.16			2.06
Leadville	Arkansas	.04	T.				T.	T.	T.	.10	.01	.42	.04	.03		T.		T.	.42	.07	T.	T.		.07	.01		T.		.10	.01		1.32
Limon (near)	Big Sandy	T.	.16	.17				.06				.14	.06			T.						.91						T.				1.50
Madrid	Purgatoire			.22	.12			.79	.28	.67	1.46		.03		.05				.08	.02	.05	.16	.03									4.10
Marshall Pass	Arkansas				.15		.30	.30		.38		.78											.15					.14				2.06
Maxey	do	.85		.55								1.05	.90										.05						.15			3.55
Monument	Fountain																															
North Lake	Purgatoire				.25	.15	T.	.11	.64	.77	1.23	.58	.14																			4.87
Pueblo	Arkansas	.38	T.				.01	.01		.15	.04	.03	T.			T.		.07	.05	.13	.03		.47		.05			.20				0.66
Rocky Ford (near)	do	.40						.68			.30		.09							.04	T.	T.		T.				T.				2.87
St. Elmo	Chalk Creek			.06			.02	.03	.25	.60	.24	.90	.20					.05	.02		.05		.22		1.18		T.					2.77
Salida	Arkansas	.70		.05		.12			T.	.70	.13	.86	.05			T.			.76	.80		.81	.05	.15					.15			4.48
Santa Clara	Huerfano																															
Sheridan Lake	Arkansas																															
Stonewall	Purgatoire	1.10		.20	.02	.05		.22	.88	.70	.44	.52	.37						.24	.03	.12	T.	.80					.03	.16			5.88
Trinidad	do		T.	.26	T.			.03	.03	.29	.07	1.75	.03		.01				.05	.46		.05		.07				.35		T.		3.45
Two Buttes	Arkansas		.70		.24							.65	.30	.43						.38	T.	.02									1.04	3.76
Two Buttes Reserv'r	do	.55		.34		.62						.40	.82							.35		.15							.18			2.81
Victor	Oil Creek	T.			T.	.14	.20			.52	T.	.77	.13						.09	T.	.35	.50	.28	.32						T.	.05		3.35
Vilas	Cimmaron																															
Westcliffe	Grape Creek	.06		.20		T.	T.	.10	1.00	.45	.30	.41	.30							.22		.15	.75						.03	.06		4.03
Winfield	Clear Creek																															
Woodman Sanatorium	Fountain	.09	T.	.38	T.			.07	.82	.11	.25	.45	.04			.03	T.		T.	.04	.11	.01	T.	T.	T.	T.		T.				2.40
Wortman	Arkansas																															
Yoder	do	.22	.07				.03			.06	.06	.33	.07								.21	.03		.02					T.			1.10
New Mexico.																																
Abbott	Canadian	.50		.15	T.		.25	.65	.67			.35	1.15	.03					.07	.36	.19		.22				T.		1.10			5.69
Albert	do			1.85	.17			.11	.17	.15	.05	.44	1.99			T.			.14	.49		.27		.13					*	.61		6.57
Aurora	do	.02		.02			.07	.98	.16	.04	1.58	3.80	.20	.02		.07	.14		.24	.02	.02	.08	.85	.02				.08	.13	.20	.02	8.76
Bell Ranch	do	.03		.41	.25		.13	T.	.06					.33		.13			.55	1.69	.03								.34			4.00
Black Lake	do			.12				.30	.21		1.15	2.10					.10		.10		.12	.11						.17	.17			4.65
Cabeza	do			.65	.45	.10			.05	T.	T.	.35	.55	.15			2.15		.45	.40	.22				.20				.40			6.12
Campana	do			.54	.26		.10		T.	T.	T.	.02				.10			.80	.82	.33							*	.25			3.22
Chacon	do							.49	.69	.05	1.02	1.98				.05			.28									.40	.38			5.34
Cimarron (near)	do	.10		.19	.14		T.	.23	.11	.59	2.60	.66	.03						T.	.08	.10	.13	T.	.07				.06	.11			5.20
Clayton	do	.30	.23	.40	.38			.05	T.	.05	T.	.10	1.71					.04	T.					.02					.20			3.48
Clovis	Red			.65	.25			.10	.25	.02	.02	*	2.80						.05	.73	.46			.06								5.39
Cuervo	Canadian				.29			.25	.95	.15	T.	.10							.50	.33	.08								.30			2.95
Dawson	do	.66		.26	.13	.02	.20	.20	.06	.38	.65	4.43	.31						.03	.02	.07	.45		.19				.21	.04			8.31
Elizabethtown	do				T.	.06		.24	.28	.12	.25	.55		.10			.08			.10		.57	.16					.05				2.56
Folsom	Dry Cimarron	T.	.04	.55	T.	T.	T.	.04		T.	T.	1.20	.44		T.	T.			T.	.61		.17	.05	.02					.14			3.26
Fort Union	Canadian	.50	T.	.60	.17	.20	T.	.55	.65	2.35	1.25	2.93							.27	.05	.15	.80						.07	1.10			11.64
Hayden	do			.50				.22				.03	.34						.03	.41	.13		.38		.04					.57		2.65
Hoosier Ranch	do		T.	T.	.08	.03	T.	.48	T.	.03	.42	.31	2.03						.09	.15	.03							.26				3.91
Johnsons Park	do	.01	T.	.43	.01	T.	T.	.65	.55	.04	.52	1.13	.68						.48	.01		.03	.24					.05	.16	.18		5.17
Johnsons Ranch	do			.08	.06		.15		.47		.08	.48	1.24						.13	.57	.03								.80			4.09
Kappus	do						.60					.30	.45					.80		.06	.90											3.11
Lake Alice	do			.12		.31		1.15	1.15	.43	1.32								.30													4.78
Logan	do			T.			T.						.70							2.10	.38											3.18
Lykins (near)	Red		.36					.50	.33	.85		*	4.09						.09	.78	*	.74							.15			7.89
Maxwell (near)	Canadian			.52	.06			.28	.52	.53	.10	1.39	.41							.25	.03		.84	.05				.64		.04		5.86
Melrose	Red				.40	.47		.07	.47	.27		.95	3.49				.30			.49	.97	.52								.14		8.24
Miami Ranch	Canadian				.18			.30	.10	.80	.46	1.87	1.17						.05		.13		.30					.22				5.58
Mills (near)	do	.26		.08	T.		.07	.49	.35	.02	.09	.64	.65			T.			T.	.53	.16			.12						.89		4.35
Montoya	do			.33	.20		T.	.18	.48			1.65				.26			.27	.57	T.	T.								.21		4.15
Nara Visa	do	T.		.03	T.	T.		1.01	.06	T.	T.	.41	.54					.15	T.	.71	.79											3.70
Palo Verde	do	.02	T.	.18	.15			.40	.15		.23	.71	.62						T.	.29	.13			.16					.78			3.82
Pasamonte	do			.52			.39					.28	.86						.21	.22				.25				.16				2.89
Pleasant View	do	.06			.20				.60			.48	1.20						.18	.53								1.37				4.62
Portales	Red			.04	.34				.83	.75	.03	T.	5.00						.02	.02	.50		.02									7.55
Raton	Canadian			.05			.57		1.46	*	3.12	1.30	.65	.50					.15	.30		.05					.12	.08				8.35
Rociada	do																															
Rosebud	do																															
Roy	do	.10	.20	.35	.30		.10	.43			.80	.85	.10						.10	.21	.10			.25					.68			4.57
Roy (near)	do	T.		.07	.15		.09	.41	.27	.12	.15	.70	1.88						.15	.32	.16								.55			5.02
St. Vrain (near)	Red			.28	.66				.65			*	1.85						.10	1.11	*	1.16		.27								6.08
San Jon	Canadian				.29	.01	T.		T.	T.	T.	T.	.18					T.	T.	.07	.60	T.	.20						.02			1.37
Solano	do																															
Springer	do																															
Taylor	do	T.		.19			.23	.56	.28	.03	.58	.23	.16				.05			.10	.30												2.71
Texico (near)	Red				.80	1.02			1.51			.18	1.00						.19	.63	.92	.10		.10									6.61
Trementina	Canadian			.34	.28		.04	.10	1.60	1.01	.20	2.00	.65			.03			.70	.60	.15	.02	.02							.52			8.26
Tucumcari	do			.65														1.33		.12	.30		.10					.55				3.05
Valley	Dry Cimarron																															
Vance (near)	Canadian			1.21	.11					T.	.16	T.	.03	2.26					.15	.06				.13					.16			4.27
Vermejo Park	do		T.	T.		T.	.04	.38	.20	.03	.43	.82	.58						.18	T.	.09	.18	.14				T.					3.07
Wagon Mound (near)	do	.42	.01	.01	.03		.16	.16	.79	.43	.36	.48	.90	.26			.07			.38	.16		.15						.14	1.00		5.91

TABLE 2.—*Daily precipitation for June, 1913. District No. 7*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Texas.																																
Amarillo	Canadian			.01	.44	T.	.05	.32	.09	T.	.06	.03	.76						.11	.06	.16	.19							.03	T.	.01	2.32
Archer City	Red	T.						.50	.22	.69	.25							.15	.21	.74				.07								
Arthur City ‖	do							1.10	T.	.13	T.	T.								T.	T.		.95	1.17					.26	.13	3.22
Bonham	do							.58	1.23	.63	.12									.35								T.	.59	T.	3.94
Canadian	Canadian		.06		.02	.01		.07			.27	.07					.03		T.	.10	.57	.25			.09			.68	.17		4.01
Childress	Red								.40	.10									.15			2.20						.11	T.	1.85	3.25
Chillicothe	do					.07		.34	.65	.08	.18	.04											.17		.06				.25		4.89
Clarendon ‖	do		.10		.18	.04		.51			.08		.01							.52		.15	.47						1.89		1.84
Clarksville	do								1.75														.30						.15	3.60	5.81
Claude	do																					T.									2.05
Dalhart ‖	Canadian				.16	.04		.11					.40							.04	.54										T.
Denison ‖	Red							.10			1.40								.20				.10	.10	.20						1.29
Finley ‖	do																		.40												2.10
Henrietta ‖	do							.70		.18	.90								.18	.10			T.		.05				.50	.03	0.40
Jefferson ‖	do																		.50									.10			2.64
Memphis	do							.25	.12									1.25													0.60
Miami	Canadian		.11		T.		T.	.22			T.	.12	.02					.07	T.	.07		.15	T.		.17			.11	T.	2.50	4.12
Ochiltree	do		.40		.24																							.42		2.90	3.94
Panhandle	do								.03										1.00				.02							.91	1.97
Paris ‖	Red				.05			.65	T.	.23	.03	T.							.08	T.			.25	.03				.02	.28	T.	1.05
Plemons	Canadian		.49		.05	.24	.07	.32			T.		.23						.01		T.							.38		T.	1.62
Quanah ‖	Red				T.				T.	.35	T.								T.	.22		.42	.15						.10		1.79
Ringo Crossing ‖	do									.95	.60																	.10	1.60	.50	1.24
Romero	Canadian				T.		T.	.90	.22	.01	.12	T.	.40							.23	.45										3.75
Sherman ‖	Red			T.					T.	.30	.65	T.							T.	T.			T.	T.	T.	T.		.25	T.	T.	2.33
Stratford	Canadian				.03	.05						.05	.50								.62				.23						1.20
Tulia	Red	T.	T.	1.04	.18	T.	.59	T.	.08	.02	T.	.09	T.	T.				.24	.16	T.	.15	1.51	.02	T.						T.	.10	1.48
Wellington	do						1.20												.16		.65		.31							2.00	4.18
Wichita Falls	do						.55			.20	.50						35		.70											.40	4.32
Winfield	do								1.50	.65	.15							.68	T.			.31						.28	.62	.02		2.70
Kansas.																																4.21
Alden	Arkansas	T.	.04		.03	.02	1.07	.11	.02	.07				1.18	.41					T.	.10	.02			T.				T.		.10	3.17
Anthony	do		T.	T.	.09		.13	T.	T.	.18	.07							.10	T.			.01		.14				.04		.71	1.47
Ashland	Cimarron		.45	.35			.10		.01	.65	.40	.05						1.78	.09			.40						.07		.30	4.65
Burlington	Neosho				1.05				.50													.39		.23						1.91	4.08
Chanute	do	T.					.42	T.	T.											T.		.24	.16		.05					T.	0.87
Cimarron	Cimarron		.15	.55	.38		.07	.04	T.	.25	.10			.97	.30					T.					T.			.70			3.51
Coffeyville	Verdigris		.01	.54						T.												T.	.02		.06				T.	.60	1.23
Coldwater	Cimarron		.58	1.69	.22		.38	.06	T.	.44	.16			T.				T.		T.		.77						.02		.15	4.47
Columbus	Neosho																														
Coolidge	Arkansas	1.06		.36	.15		.07					.49		1.17																.16	3.46
Cottonwood Falls	Neosho					1.05		.02							.04				.01						.43					.54	2.09
Council Grove	do				.25		.02	.03	.06						.06							.18		.04	.27					1.41	2.32
Cunningham	Arkansas	T.	.55		.11		.41	.54	.46	.66	.06				.25				T.	.17		1.06								.18	4.45
Dodge City	do		.03	.03	.12	.06		.11	.01	.15	.06	T.		1.19				T.		.03	T.	.02			.21					T.	2.02
El Dorado	do		T.		.26	.06	T.	.01		.03					.02				T.			.04	.38		.34			T.		.55	1.69
Ellinwood	do	.03	.02		T.	.02	.78		T.	.14	T.			3.25	.12	.01				.02	.40				T.					.12	4.91
Emporia ‖	Neosho					.89																				.24					1.13
Eureka	Verdigris					.08	.07													T.	T.	.45	.03	.18	.08					.42	1.31
Fall River	do				T.		.05	T.												T.										.20	0.25
Fargo	Cimarron		.64	T.	.31	.11				.15	T.	.11	.14								T.										1.46
Fredonia	Verdigris		.01	.02			.55	T.	T.											T.		.17	.02	T.	.01					.21	0.99
Garden City	Arkansas		.28	.62	.80		.25			.27	.08	.10	T.	.73	T.					.05	.10							T.			3.28
Greensburg	do		.26	T.	.17	T.	.10	.12	.14	.21	.25									T.		.18			.08			T.	T.	.03	1.54
Grenola	Verdigris		.10	.06	.02		.63	T.		.11										T.		T.		T.	T.			T.		1.23	2.15
Howard	do		.18				.20													T.										.94	1.32
Hugoton	Cimarron	2.08	.15		.05	.05	T.	.03		.19	.06	.01	.35							T.	.20				T.			T.			3.17
Hutchinson	Arkansas		T.				.13	.32							.33	T.		.33				.72									2.03
Independence	Virdigris		.03	1.19			.58												T.	T.		T.	.64	.19	.02					.10	2.75
Iola	Neosho		T.	.37			.20	T.	.43											T.		1.29	.07		.12				T.	1.78	4.26
Irene	Arkansas	T.	.57	.93			.02			T.	.05	.37	.34	.64				.86	.04							.41				.33	4.56
Jetmore	do																														
Kingman	do	T.	.62		T.	T.	.12	.10	.10	.22					.17				T.		.03		.65		.62	.36			T.		.25	3.24
La Crosse	do						.31	.15	T.	.05	T.			1.08	.65						.06	T.			T.	.08					.11	2.49
Lakin	do	.54		.35		.16				.12		.13	.52							T.					T.			T.			1.82
Larned	do		.11			.11	1.11		.03	.05	.04			.28	2.32						T.				T.	.09				.07	4.21
Lebo	Neosho				.18	1.57	T.		T.											T.				T.	.08					.77	2.60
Le Roy ‖	do					.11	.03	T.	.16												T.		.58	T.	T.	.19						1.07
Liberal	Cimarron	T.	.55		.10	.03		.02	T.	.05	.08	.02	.08	T.	.10				.04	.20	.03				T.			T.	.04	T.	1.34
Macksville ‖	Arkansas			.20		.05	.45	.08		.14	.16			.01	.48						.01					.05				.01	1.64
McPherson ‖	do						.02	.05							.05							.82									0.94
Madison	Verdigris		T.		T.	1.80	T.													T.		T.	.15	T.	.21					.68	2.84
Marion	Neosho		T.			.14	.08	T.	.02	T.					.01				T.		T.	.21			T.			T.		.25	0.71
Medicine Lodge	Arkansas	T.	.16	T.	.09		.35	T.	.57	.46	.09							.23	.02	.25	T.	.19		.08						.11	.52	3.12
Minneola	Cimarron		.06	.69	.14	.10				.32	.11				.18			.22	.06						2.10					.26	4.24
Mount Hope	Arkansas					.48	.11	.07							.95							.15			.11					.21	2.08
Neosho Rapids ‖	Neosho					.85																				.10					0.95
Ness City	Arkansas		T.	.03		.35				.05	.08	.13	T.	.32	.41										.04		T.				1.41
Newton	do		T.			T.	.36	T.	T.						1.59							.08		T.	T.					.14	2.17
Norwich	do	T.	.23		T.		T.		.02	.17					.37				T.	.17		.03		.17	.35				.03	.61	2.15
Oswego	Neosho			.08			T.													T.		.04	T.	.17	.27						0.56
Pittsburg	do			.25																		.18	.50		.07						1.00
Plains	Cimarron			T.	.73	.10			T.	.15	.10	T.		2.60	.45					T.	.25							T.			4.38
Pratt	Arkansas		.13		.10		1.00	.16	.19	.27	.04			.10								.80									2.79
Richfield	Cimarron	T.	.43	T.		.02				T.	T.	.03	.66	.55	.04				T.	.02		T.									1.75
Rome	Arkansas		.01			T.	T.	.05		.68									.07			T.	1.95		.20					.26	3.22
Sedan ‖	Verdigris			.80				.43		T.	T.												T.	.25	.06						1.54
Toronto	do								.40															T.						1.98	2.38
Ulysses	Cimarron	.73		T.						T.	.18	T.	.28	2.14	.20					T.										T.	3.53
Walnut	Neosho		T.				.19	.06											T.	T.		T.			.13					T.	0.38
Wellington	Arkansas		.13				.10			.27	.06										.18								.05	.50	1.29
Wichita	do		.31		.10		T.	.01	.03	.18				.35	.06				T.	T.		T.		T.	.02				T.	.30	1.36
Winfield	do									.58								T.	.09	T.		T.	.48	.03	.13						1.31
Yates Center	Verdigris						.03	T.	.04											T.			.05	.03	T.					1.46	1.61

TABLE 2.—*Daily precipitation for June, 1913. District No. 7*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Oklahoma.																																
Ada	Canadian							.09		.15	.03								.26	.05					.09						.10	0.77
Altus	Red			.06	T.	.20		.22	.54	.08	.02	.08							.51			.27	.11								2.60
Alva	Arkansas		T.	.68	1.32	.02	T.	.03		.25												.56		.15						.51	4.36
Apache	Red							.90	.21	1.59	.20	T.							.28	T.				.51	.05					.05	1.30
Arapaho	Washita	.05	.05				.61		T.		.22								T.	.27		.18	.09							.37	.20	4.31
Ardmore	Red						.06	.40	.04	.40	1.95	.17							.09	.07	T.				.21	.10			.08		1.38	2.93
Bartlesville	Arkansas			.45				T.			.27								.09	.07	T.				.18				T.	.16	.23	3.88
Beaver	Canadian	.02	.52		.45	.05		.10		.05	.12	.04		.25																	.36	1.26
Cache	Red							1.20	1.52	.80									.43	.20				.70					.37		.35	2.32
Calvin	Canadian			.08				.04	.08	.88										.05				T.							.50	5.35
Chandler	do			T.				.62	.07	T.	.30									.30											T.	1.13
Chattanooga	Red			.12		.10		1.20	1.08	.97	.40								.17					.75						.55	T.	1.84
Chickasha	Washita				T.		T.	1.73		.95	1.75	T.								.27	T.				.06					.14	T.	6.08
Cleveland	Arkansas		T.	.58	.05		.11	.11	T.	.74									T.	T.			T.	.10						.14	1.15	4.90
Cloud Chief	Washita				.21			.16	T.	.17	.27								.09	.21		T.	.14	.19	T.					.08		1.77
Crawford	Canadian																													T.	.96	2.40
Durant	Red			.10				.06	.02	.21	.21								.07				T.	.02	T.	T.			.10	.40	.11	1.30
Eldorado	do			T.	T.					T.	.11	.04						.23	.02			.18								.33		0.91
Elk City	do																															
El Reno	Canadian			.06				2.40	.16	1.37	.47								.20	.05			.08									4.79
Enid	Cimarron			.15	T.	T.		.56			1.48					T.		T.		.18			.10		T.					.20		2.67
Erick	Red			T.	T.			.38	.04	T.	.35	.20								.38	T.		T.	T.	T.				.18	.01	1.10	2.64
Eufaula	Canadian							T.														15										0.15
Fairland	Arkansas			.17	.95	T.	T.	.14	T.	T.									T.	T.		14	.35		.31						.29	2.35
Fort Gibson	do			T.	T.			.17		.05	T.									.05			.68	T.	T.						T.	0.90
Frederick	Red				.05	.10		.35	1.02	.09	.09	.06								.04	.54	T.	T.	.70						T.	.69	3.73
Geary	Canadian		.35	T.	.01	T.	.14	.31	.01	.76	.26								.25	.01			.14						T.		.06	.17	2.47
Goodwell	do		.16	.17	.15						.01	T.	1.12	.16	1.39	.03				T.	.13	.11			.22				T.				3.65
Guthrie	Cimarron		.15	T.				.50	.25	.75	.40									.20				.25						.10	T.	2.60
Guymon	Canadian		.15		.15					T.	T.		.75	.25								.15										1.45
Hartshorne	do										.40																			.40		0.80
Healdton	Red		T.				.15	.10	1.25	.85	1.31							.33	.46	.17				.68	T.				T.	.55		5.85
Helena	Cimarron																															
Hennessey	do						1.02	.30		1.55	.75								.68	.05		.11									1.40	5.86
Hobart	Red			T.		.38		.36	.11	.14	.10							T.	T.	.21		1.65	.15	.20						.20	2.55	6.05
Holdenville	Canadian							.32			.09									.02					.27					T.	.03	0.73
Hooker	do		T.			.33				T.	.10	T.	.52	.01					T.	.33	T.	.13							T.			1.42
Hugo	Red			.33				.23	.81		.35							.03	.06			.41						.01	.07	.08		2.38
Hurley	Cimarron			.85	.28							.28	.49		.14				.20			T.	T.									2.24
Idabel	Red																															
Jefferson	Arkansas			.58			.16			.54	.71				.14								1.10							T.	.49	3.72
Kenton	Cimarron		.12	.36	.21	.01		.12	.02	T.	T.	.07	.52	.01					.14	.02		.11			T.				T.	T.		1.71
Kingfisher	do		.10	.03			.56		.16		1.61								.64	.01		.02	.11					.01	.02	.07	T.	3.34
Lawton	Red			.02	.02		1.87		.70	1.33	.15								.66					1.60						.14	.28	6.77
Lawtonka Lake	do		.02	.03		.02	.80		.80	.70	.07								.46	.04				.88								3 82
McAlester	Canadian				T.			.11		.10	T.												.44							T.	.06	0.71
Mangum	Red				T.			.25	.03	.18	.12	.15								T.		.12	.04	.20	T.					T.	T.	1.09
Marlow	Washita							1.60		1.80	1.15									.15					.30						.10	5.10
May	Canadian																															
Meeker	do							.88	.25	.55																						1.68
Muskogee (1)	Arkansas									.02												.04									.01	0.07
Muskogee (2)	do			T.			T.		T.													T.	T.						T.		T.	
Mutual	Canadian				.15		.50	.40		.35	.40				.06																.81	2.67
Neola	Washita	T.	T.	T.				.41	.07		.84								.09	.08	T.	.02	.02	.22					T.	T.		1.75
Newkirk	Arkansas		T.	.45	.39	T.	1.39			.55												.30	T.		.10						.90	4.08
Norman	Canadian		.50	.05				2.36	.55	.25	.28						.25		.17	T.				T.	.04				T.	T.		4.45
North Muskogee	Arkansas																						.39	.05								0.44
Oakwood	Canadian																															
Okeene	Cimarron		.20	.01		T.	.51	.28	.02	.76	.42								T.	.13		T.	.12						T.	T.	.70	3.15
Okemah	Canadian							.65		.14														.32					.30			1.41
Oklahoma	do		T.		T.		.50	.48	.99	1.02	.59						T.		.18	T.				.02	T.				T.	T.	.04	3.82
Okmulgee	do						.20	.25	T.																							0.45
Pauls Valley	Washita								.73	.10	.28													.48	T.				.07			1.82
Pawhuska	Arkansas		.13	.17			1.21			1.30									.16	T.			.01	T.						.09	.14	3.05
Perry	do		.19				.10	.16	.04	1.10	.06						T.		T.					T.					.10		T.	1.75
Rankin	Red			T.			.14	.12		T.	.19	.21							.26	.31		.98		.16	.02				.03	T.	1.50	3.92
Ravia	Washita							.25	.55	.40	.40								.12					.05					.12	.20		2.09
Sac and Fox Agency	Canadian						.05	.15	.10	.02										.10								.01		.03		0.46
Shawnee	do				T.			.93		.31	.28	.16								.59	T.			.06	.17				T.		T.	2.50
Snyder	Red																															
Stillwater	Cimarron			.15				.66		.76	.14									.12			T.		T.					.05	T.	1.88
Tahlequah	Arkansas			.07				.09	.64											T.			T.	.08								0.88
Tulsa	do			.10				.24		.05	.27													.02	.07	T.				T.	T.	0.75
Vinita	do																															
Wagoner	do			.23				.10												.30	.27									.03		0.93
Waukomis	Cimarron	T.	T.	.05	.05		.20	.20	T.	1.12	1.38								.05	.54	.10		T.	T.				T.	T.	.53	T.	4.22
Waurika	Red							.68	.07	.61	.08								.33	.59	T.		.02	.16					.13	.55		3.22
Weatherford	Canadian		.01		.10	.11	.90			.01	.78	.10						T.		.21	.02	T.	T.	T.	T.						T.	2.24
Webbers Falls	Arkansas								T.													.35									.25	0.60
Whiteagle	do	.08		.50			.10			.80						.09							T.								.15	1.72
Woodward	Canadian		.23	.06	.81		.45	.03	T.	.48	.34				.35			T.	T.		.02	.45			T.				.24	T.	1.85	5.31
Wyandotte	Arkansas			.40		.90		.60																.50	.28							2.68
Missouri.																																
Belle	Meramec								.36														.60	.70	.90				T.			2.56
Birchtree	Black			1.04					.57														.73									2.34
Cape Girardeau	Mississippi									.30														T.	.10	.10						0.50
Cardwell	do			1.13		.32		.65															.11	.18								2.39
Caruthersville	do			.45	T.		T.		T.															.75					T.		.05	1.25
Cassville	White				1.15																	.15	T.	T.					.76			2.06
Dean	Neosho			.42		.31		.11														.06		.08				T.				0.98
Doniphan	Black			1.50			.10		.64	.61												.05	.05	.17								3.12
Fruit City	do																															
Gano	Meramec			.12				.38	.88													.28	.15	2.51								4.32
Goodland	Black			.10					1.90														.13	3.05	.15					.13		5.46
Hollister	White		.25	.50				.15	.10																							1.00
Ironton	Mississippi			T.	.40				.17	.27										T.			.35	.05	.54	T.			T.	T.	.10	1.88
Jackson	do																						.15	.28	.45				.03			1.14
Joplin	Neosho							.17	.06																							
Koshkonong	Black		.08	.84		.70		T.	.03												T.	T.	.06	.33								2.04
Lamar	Neosho			.49					.15												T.		.02	.93	T.	T.				.08		1.67

TABLE 2.—*Daily precipitation for June, 1913. District No. 7*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
***Missouri*—Contd.**																																
Marble Hill	Mississippi							.25	.17															.30	.12							0.84
Mountaingrove	White			1.68	.06				.28													.22		2.60	T.							4.84
Mount Vernon	Neosho	.10		.78	.02	.08																1.40	.20	.27	T.				T.		T.	2.85
Neosho	do			.97		1.05		.42	1.65											T.		.02	T.	.10	T.				.26			4.47
New Madrid ‖	Mississippi			.02	.50				.25															.50								1.27
Oakfield	Meramec					.04		.01	T.													.06	.05	1.58	.18							1.92
Rolla	do		.27						.65													T.	.33	1.50	T.							2.75
Springfield	White	T.		1.76			T.	.22	T.													.09	.26	.32	T.					.06	T.	2.71
Kentucky.																																
Blandville	Mississippi			T.			.02	.05	.04														.21	.02					T.	.04	.16	0.54
Tennessee.																																
Arlington ‖	Mississippi			T.				.17	.05													.52			.10					.05		0.89
Bolivar ‖	do							.95	.48																					.36		1.79
Brownsville ‖	do			.07	.38			.25	.02													.07			.43					.05		1.27
Covington ‖	do			1.00	.08				.07																					T.	T.	1.15
Dyersburg ‖	do			T	1.60			.10	.90																T.							2.60
Jackson	do			.30				T.												T.				1.01					.42			1.73
Kenton	do			.39					T.															3.09							T.	3.48
Memphis	do		.13	.01			.52		.25	T.										T.				.01					.05		T.	0.97
Milan ‖	do				.09			.23	.22													.04			.04					.01		0.63
Trenton	do			T.				T.														T.		.40					T.		1.30	1.70
Union City	do			.08			.15		.10															.46					.40		.15	1.34
Arkansas.																																
Alicia	White			.55		.40		.20															.30	T.								1.45
Amity	Ouachita																															
Arkansas City ‖	Mississippi				.03					.09	.08											.31										1.41
Batesville ‖	White				.06		.20	.50																.14	.06							0.96
Bee Branch	Arkansas			.20	2.10			.35													T.			.10							T.	2.75
Bentonville	do			.04	.84		.01	T.														.06	.03		.01							0.99
Bergman	White		T.	.33				.07														.06										0.46
Black Rock ‖	do			.09	.16			.21	.18																.15							0.79
Brinkley ‖	do						T.	.63	.04																T.					T.		0.67
Calico Rock ‖	do																						.52									0.52
Camden ‖	Ouachita								.05	4.93														1.22						14		6.34
Centerpoint	Red			T					2.00									.12					.45	T.				T.	T.	.09	.21	2.87
Clarendon ‖	White				.42		.10	.15	.35		.03														.10					.22		1.37
Conway	Arkansas			.11					T.	T.										.10				.65							.29	1.15
Corning	White		.70				1.00		.57													.15	.04	.06	T.							2.52
Dardanelle ‖	Arkansas			.05	.25	.02			.80															.44	.04							1.60
Dodd City	White			.30					.30													.15		.60								1.35
Dumas	Arkansas			.38		T.		T.		.42																						0.80
Dutton	White			.60	T.																	.16	T.									0.76
Eldorado ‖	Ouachita				.13				.05	.47	T.											.98		.19					.29			2.11
England ‖	Arkansas				.55	T.		.32	T.	T.	.02												1.00	.85								2.74
Eureka Springs	White		.12	.62	.12	.44		T.	.19	T.														.30						T.		1.79
Fayetteville	do		.10	.32			.09	.24	.13															.17								1.05
Fordyce	Ouachita			.55		.90			.30																						2.07	3.82
Fort Smith	Arkansas			.03			T.	.04	.37													.20	T.	T.				T.			T.	0.64
Fraziers Turnpike	do																															
Fulton ‖	Red								1.00	.90														.40								2.30
Georgetown	White			T.																				.14								0.14
Hardy	do		1.42	.03			.40	T.														.82	T.	.11					T.			2.78
Helena ‖	Mississippi							1.25																						.22	.01	1.48
Hot Springs	Ouachita			.15	.10						1.60												.66					T.				2.51
Huttig	do						.03	.07	.60	.67																		.05				1.42
Jonesboro	White			.05			.03																.07	.04							.01	0.20
Junction	Ouachita																															
Lake Farm	Arkansas			.32	.22				.33	.05														.12							.19	1.23
Lewisville	Red																															
Little Rock	Arkansas			.02	.37				.03	.02													1.61	T.								2.05
Lutherville	do			.53	.06					.01											.02			.52	.03							1.17
Malvern ‖	Ouachita				.10	.40			.62	.38	T.													.50								2.00
Mammoth Spring	White		.80	.32			.05																	.53								1.70
Marked Tree ‖	St. Francis																															
Mena	Ouachita			.03				.32	1.50	.02												T.									2.15	4.02
Newport ‖	White							.20	.47															.06	.75							1.48
Pine Bluff ‖	Arkansas				.12	.14	.22	.24			.08													T.	.27				T.			1.07
Pocahontas	White			.80			.15		.20														.03	1.70								2.88
Pond	Arkansas			T.	T.	.30	T.	.33														.06										0.69
Portland ‖	Ouachita				T.	.44	T.		.08	.91	.10																				T.	1.53
Prescott ‖	do								.02	1.55														.13					.05			1.75
Rogers	Arkansas			.18	.31	.51	T.	.22	.73													T.	.63									2.58
Springbank ‖	Red								T.	.68	T.	T.							.11			T.		T.					T.	T.		0.79
Stuttgart	Arkansas				T.				.49	.03														.34								0.86
Subiaco	do			T.	.58																	.35		.17								1.10
Swain	White			.81	.10	T.			T.														.20	T.								1.11
Texarkana ‖	Red									.40												.03	.40	T.					.05		.30	1.18
Warren ‖	Ouachita				.40				.27	.28																						0.95
Whiteclifts ‖	Red			T.						1.52	T.	.23											.22									1.97
Wiggs	Ouachita			.08	1.68			.08	.15	1.31													.15	T.				T.				3.45
Wynne ‖	St. Francis								1.52																.25					.04		1.81
Mississippi.																																
Anguilla	Yazoo				T.	.35		.40	.10	T.																						0.85
Austin	do			.90			T.		T.	T.											T.								.31	.63	.03	1.87
Batesville ‖	do							.10	.23													.45								1.10		1.88
Big Creek	do						1.30			.03																			.60			1.93
Canton	Big Black				.12	.10	.28		.50	.05									.30										T.	.01		1.36
Charleston	Yazoo							.70																					1.30			2.00
Clarksdale ‖	do				.04		.60	.01			.01																			1.04		1.70
Cleveland	do			.13		T.		.45	T.	.10	.01										1.63	.05								.21		2.58
Coffeeville	do		.07					.76		.04											.60								.26	.12		1.85
Corinth ‖	Mississippi			.90	.04			.02	.20															.02							.08	1.26
Crenshaw	Yazoo						.35													10									.15	.10		0.70
Duck Hill	do			T.	T.			.56	T	.15	T.									.90									T.			1.61

TABLE 2.—*Daily precipitation for June, 1913. District No. 7*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Mississippi—Contd.																														
Edwards	Big Black					2.70	.10	.30	T.	.10										.60	.10	T.	T.			T.	T.	.10	T.	.10		4.10
Fayette	Mississippi					.16	.19			.46											1.00	T.			.31		T.	.13		T.	2.95	5.20
Greenville ‖	Yazoo				.23					.37	.54											.42										1.56
Greenwood ‖	do				T.					.26	.37											.18								.05		0.86
Grenada	do																				.40								.30			0.70
Hernando ‖	do							T.														T.								.50	.01	0.51
Hickory Flat	do					1.53	.55																							.75		2.83
Holly Springs ‖	do				.01			.38	.37													.66								1.83	.29	3.54
Kosciusko ‖	Big Black					.26		.01		1.25	.01																			.10	.02	1.65
Malone	Yazoo			.94	.43		1.05															.20								.55	.11	3.28
Moorhead	do			.29	.01	.72			.01	.23											.01										T.	1.27
Natchez ‖	Mississippi							T.	1.31			.08										T.					T.	.09	.38			1.86
Pontotoc	Yazoo			.30			T.	.25		T.	.36																				.90	1.81
Port Gibson ‖	Mississippi					.21	.94	.05	.58												T.	.65	.19			T.	.21		.49	1.43	.09	4.84
Rosedale ‖	Yazoo				.25						.30																			.10		0.65
Shoccoe	Big Black				.37	T.			.85	.40										T.				T.								
Suffolk	Mississippi					.24	.03		T.	.03	.01							T.		.36	1.05	.27		T.		T.		.02		T.	.13	2.14
Swan Lake ‖	Yazoo				.16					.09																						0.25
Tchula	do			.30				.55		.21											T.							T.	T.			1.06
University	do																															
Utica	Mississippi					3.25	.56	.61	.18	.12										T.	.09	.55			.15					.07		5.58
Vicksburg	do					.08	.03	T.	.15	.07	.10										T.				.01		.02					0.46
Water Valley	Yazoo		.15	T.			.75	.40		T.											T.								.40			1.70
Woodville	Mississippi									.08							T.	.08		.03	.09				.24	.02	.11	.78	.05		2.25	3.73
Yazoo City ‖	Yazoo					T.	T.			T.												T.										T.
Louisiana.																																
Abbeville	Coast						.27		.13	.01						.20	2.35	.70				.34	.02	.16			.15	.38	.01	.62	.56	5.90
Alexandria ‖	Red									.82	.08							T.	T.			.10					T.	.46	.60			2.06
Amite ‖	Coast						1.00	T.			T.											T.					T.	.20				1.20
Antioch	Red							.02	.50	.34												.22	.08	.03					.36		.14	1.69
Avoca Island	Coast																															
Baton Rouge ‖	do						.18	.10	1.30								T.	.15				.28						.11	.19	.30	1.05	3.66
Burnside	do						.65									.17	.80				.63						.22	.48	.05	.30	.65	3.95
Burrwood	do								1.92			.08																.50				2.50
Cades	do								.04							.43	.26	.41				T.	.34	.26		.12	.03	.25	.17	.55		2.86
Calhoun	Ouachita					1.55	.05			1.56	.12																	.23	.30	.47	.87	5.15
Cameron	Coast							.34	.14	.31	.70					.01		.12									.53	.03	.46	.04	T.	2.68
Carrollton	do																															
Cheneyville ‖	Red									.15	1.25							.30	.03			.30					.15		.13	.10	.60		3.01
Cinclare	Coast					T.	1.10									T.	.50				1.70							.98	1.05	.17	5.50
Clinton ‖	do								T.													.10	.15			.13	.06	.10	.07	T.		0.61
Collinston	Ouachita					.15	.50	.07	.35	2.43	.20											.45			.12			.12			.96	5.35
Covington ‖	Coast						.12		.50																			.48	.91	.53		2.54
Dodson	Red								.98		.06										T.								.30		.19	1.53
Donaldsonville ‖	Coast					T.											.10	.12				.30		2.20				.65	.10		1.05	4.52
Dutchtown ‖	do															.10	.20				.40						.10	.33	.10		.58	1.81
Farmerville	Ouachita					T.			1.15												.07							.40			.56	2.18
Florence ‖	Coast									.10						4.30	1.10	.01				.40					.50	1.40				7.81
Franklin ‖	do							1.81	.01	.01		.08					.02	.46	.01				.27	.57	.05	.02	T.	.74	.68	.11	.02	4.86
Franklinton	Pearl					T.	.11		.21	.27							T.				T.					T.	.30	T.	T.		T.	0.89
Grand Cane ‖	Red									.80	.12								17										.13	.02		1.24
Grand Coteau	Coast						1.90		.05	.08						.17	.03			.07		1.60			.20	.07	.20	T.	.25	.04	.30	4.96
Hammond	do					1.00	.63		.45																				55			3.30	5.93
Houma ‖	do					.25	.20	.30		1.60						1.05	1.00						.10			.60	.55	.60	.15	1.00	.10	7.50
Jena	Red					3.15			.53												.45								.95	.10		5.18
Jennings ‖	Coast						.72		.90							.97	1.02	.11							.09	.06	.56	.18		.39	.52	5.52
Laark	Red				.25	.25			1.62	.45																						2.57
Lafayette ‖	Coast							.69		.10							.92	.28				.05	.53		.02			.01	.09	.05	.30	3.04
Lake Charles ‖	do								2.00	.50	.70						1.00	.22	.25								1.83	.70	.80	.30		6.30
Lakeside	do															1.70	2.20											68	.17	.02		4.77
La Rose (near)	do					.40						.15	.05				.20	.17						.13	.17		.13	.21		.70	.13	2.44
Lawrence ‖	do						1.00	.73	.03	.04	.06							.41					1.79	.22	1.60		.14	.28	.11		.06	6.47
Liberty Hill	Red										.05										.50								.10		2.50	3.15
Logansport ‖	Sabine									.28	.10								.79										.13	.50		1.80
Melville ‖	Red								T.	T.	T.						T.	.23				.93	T.			T.	T.		.35	.18	T.	1.69
Minden ‖	do								.25	.45									.03			1.10							.06	T.	T.	1.89
Monroe ‖	Ouachita						.02	.01	T.	1.78	.03	.22										.47				T.		T.	T.	.11	T.	2.64
Morgan City ‖	Coast										.93	.13											.85				.04		.09	.42		2.96
Napoleonville	do						.05									.55	.75				1.00	1.40	.80	.75	.35	.90	.35	.25	.65	.50	2.85	11.15
Newellton	Mississippi					1.75	.20			2.25											.14					T.	T.	T.		1.65	.76	6.75
New Iberia	Coast								T.	T.	T.					.35	.40					.40	T.	.25		T.	.10	.50	1.55	T.	.45	4.00
New Orleans (1)	do						.70	.12	.04	.13							.20	T.			.01	1.50	1.66	.03		.26	.73	.06	.05		.09	5.58
New Orleans (2)	do					.44	.13										.09	.01			.05	.24				.11	.24	.25	.01		.12	1.69
New Orleans (3)	do						.40	.38	.01								.09	.01			.22	.08		.01		.02	.43	.10			.16	1.91
New Orleans (5)	do					.07	.43	.03		.15							.03	.03			.01	1.89	.12	.06	.04		.52	.06			.08	3.52
New Orleans (6)	do					.07	.27		.03	.07							.27					1.57	.87	.11		.31	.66		.01		.08	4.32
New Orleans (7)	do					.19	.13	.42									.09	.02			.05	.22	.38			.31	.35		.01		.14	2.31
New Orleans (8)	do						.36	.04										.02				1.54	1.56			.28	.74	.12				4.66
Opelousas ‖	do							.23		T.	.43						.07	.33				T.				T.		.32	.29	.57		2.24
Paradis	do						.35										.50			.10						.60	.50	.70	.80			3.55
Pearl River ‖	Pearl						.34	.56	1.66	.26																		.06	.20	.58	.42	4.08
Plain Dealing	Red								1.06	.33	T.										.03				.31			.03	.25		1.05	3.06
Rayne ‖	Coast									.10	T.						.80	.30	.25				.15			.22	.05	T.	.25	.10	.05	2.27
Reserve ‖	do									.62								1.14	.09							.21		.80	1.02	.07		3.96
Richland Plantation	Red									.05	.10							.05	.02			1.21						.06	.65	.48	.02	2.64
Robeline ‖	do								1.80	1.65	.13	.02						T.	.03							.15			.60		.40	4.78
Ruston	Ouachita							.11	.88		.15																		.42	.04	3.05	4.65
St. Francisville ‖	Mississippi								.82	.32								.03				.91	.07		.15	.18		.06	.09	.26	.04	2.93
Schriever ‖	Coast						.50	1.30			.30						.20	.30									.65	.20	.30	.30			4.15
Shreveport	Red								2.13	T.	T.						T.	T.			.02				T.			.47	.22	T.	.39	3.23
Simmesport ‖	do							.16		1.75	.05							.04	.03			1.52				T.		.15	.15	.28		4.13
South. Univ. Farm	Coast					.45	.25	1.15	.01		.02						.18	T.				T.	.30	.10		T.	.51	.13	.10		.30	3.50
Sugartown	do								.30							.62	.10				1.45					.24	.51	.46			.76	4.44
Tallulah ‖	Mississippi						.13	.02	.10																					42	.02	0.69
Walker ‖	Coast					1.00	.25																				.25	.25	.25		2.00	4.00

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for June, 1913. District No. 7, Lower Mississippi Valley.*

Date.	Colorado.						New Mexico.				Texas.				Kansas.										Oklahoma.			
	Lamar.		Leadville.		Pueblo.		Albert.		Cimarron.		Amarillo.		Paris.§§		Dodge City.		Ellinwood.		Iola.		Liberal.		Wichita.		Ardmore.§§		Bartlesville.§§	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	87	56	62	34	79	55	86	59	75	45	92	62	97	66	90	67	90	67	91	65	92	63	90	69	103	70	98	66
2	88	55	62	31	82	52	87	58	81	46	93	59	98	69	84	62	85	58	87	61	85	59	81	63	104	71	89	68
3	81	58	66	34	76	57	86	49	73	50	84	64	92	71	86	60	89	61	87	64	87	63	86	64	100	70	89	68
4	82	54	66	33	78	53	75	55	68	46	74	57	94	67	84	60	91	64	90	64	85	59	89	67	98	69	93	67
5	88	56	62	34	83	53	82	57	76	46	84	59	91	61	88	61	92	62	88	65	90	60	89	66	97	70	91	68
6	79	62	55	34	78	56	84	55	73	48	86	55	92	69	81	59	85	62	89	63	83	60	84	67	89	70	92	68
7	72	54	59	33	63	54	72	56	66	48	70	57	92	62	71	54	70	63	71	51	79	56	68	56	89	65	82	64
8	70	47	57	33	67	50	66	55	57	49	60	56	86	62	56	50	64	48	55	46	65	55	59	50	75	66	65	54
9	60	46	63	34	58	49	66	53	59	49	63	52	72	65	52	48	56	51	70	53	63	47	63	53	68	61	67	56
10	65	48	57	33	71	49	60	51	56	48	60	51	73	60	64	48	75	50	75	44	57	48	75	52	71	55	76	53
11	63	54	52	31	68	51	66	52	61	49	63	53	79	57	69	58	78	54	80	47	69	54	75	52	79	61	81	49
12	75	52	47	28	76	51	65	51	71	46	71	56	81	53	77	59	81	53	82	48	80	56	77	56	81	55	86	49
13	81	47	58	31	83	52	85	59	79	40	82	56	85	56	83	58	84	54	84	54	87	59	83	61	86	57	86	54
14	91	53	68	33	89	52	87	57	80	48	88	61	90	57	91	64	92	59	91	68	95	63	90	65	94	59	92	61
15	96	56	72	36	94	57	90	57	81	49	88	63	92	57	92	68	93	65	94	65	94	64	92	66	94	62	96	62
16	95	63	69	37	88	53	86	57	78	49	87	58	93	62	89	61	92	61	93	59	93	61	91	63	95	65	96	64
17	93	63	68	37	88	58	84	57	78	46	82	62	94	67	88	64	91	64	94	64	92	62	91	70	92	66	96	64
18	89	64	63	38	85	58	86	61	75	51	74	62	85	69	83	62	89	63	93	65	86	61	87	68	81	69	91	68
19	90	63	61	38	84	59	81	59	75	52	76	63	93	67	84	63	86	67	85	66	85	64	84	66	82	62	89	69
20	89	60	68	37	83	59	84	56	77	51	82	58	96	67	88	62	91	65	92	70	88	60	90	70	90	68	92	69
21	85	60	69	34	78	56	80	60	74	51	80	60	95	70	82	63	83	64	93	68	85	62	83	70	96	68	96	75
22	90	58	62	33	85	57	84	59	72	49	83	59	93	69	85	61	89	64	86	68	88	60	89	70	98	70	94	70
23	96	64	62	36	89	57	87	58	80	50	84	61	92	70	92	62	94	62	91	67	94	61	89	69	92	72	95	74
24	98	60	55	33	87	57	90	62	79	52	93	63	93	72	96	66	94	69	88	71	102	67	90	72	94	73	93	73
25	99	55	65	45	93	54	90	57	83	57	93	66	91	74	97	69	96	74	90	75	103	71	91	75	93	72	92	79
26	102	70	72	44	96	60	94	57	87	52	93	67	95	70	96	73	97	74	93	74	101	.....	92	74	98	72	98	76
27	100	74	73	40	94	69	89	65	82	57	88	65	91	72	92	68	95	72	97	72	95	70	94	75	97	70	99	75
28	95	70	70	42	92	60	87	62	79	52	85	66	87	74	89	70	93	76	95	74	90	69	91	74	89	73	97	77
29	95	68	62	34	90	63	87	54	80	54	80	62	89	71	89	66	90	71	94	72	92	67	88	72	88	70	95	76
30	89	60	70	30	82	61	90	57	78	45	80	63	94	71	80	66	82	72	90	71	82	70	82	70	94	70	95	73
Mns.	86.1	58.3	63.2	35.0	82.0	55.7	81.9	56.8	74.4	48.7	80.6	59.9	89.8	65.9	83.3	61.7	86.2	63.0	86.9	63.1	86.2	61.1	84.4	65.5	90.2	66.7	90.0	66.3

Date.	Oklahoma.														Missouri.										Blandville, Ky.		Jackson, Tenn.	
	Enid.§§		McAlester.§§		Mangum.§§		Muskogee.§§		Oklahoma.		Weatherford.§§		Woodward.		Caruthersville.		Ironton.§§		Lamar.§§		Olden.		Springfield.					
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	104	60	96	67	102	63	94	66	99	67	103	63	96	65	100	78	86	63	97	65	.....	.....	92	67	93	71	96	70
2	87	61	98	69	160	64	97	70	95	70	93	62	90	62	96	72	91	62	92	61	.....	.....	88	65	89	68	94	66
3	91	65	94	73	93	67	96	70	91	69	88	63	91	64	86	66	84	63	92	66	.....	.....	82	63	81	67	91	67
4	96	67	95	69	95	64	91	69	95	70	96	65	89	60	92	66	89	57	89	65	.....	.....	83	65	87	64	89	65
5	94	65	90	67	91	66	91	66	91	69	88	64	89	63	92	70	91	61	91	65	.....	.....	86	59	88	67	93	64
6	91	64	90	69	98	63	89	68	88	64	96	63	90	64	95	71	92	63	92	66	.....	.....	84	67	91	69	93	65
7	83	62	89	65	80	63	89	68	79	63	73	62	68	60	93	67	90	58	82	63	.....	.....	80	55	87	67	88	66
8	62	53	76	61	77	60	88	59	64	55	70	55	62	52	76	63	64	50	58	49	.....	.....	55	50	72	57	.....	.....
9	66	52	69	61	60	55	73	60	60	54	57	52	54	49	75	60	68	50	71	51	.....	.....	65	53	68	52	81	59
10	71	52	79	58	62	55	70	59	72	53	62	52	64	51	79	55	74	39	76	47	.....	.....	70	47	73	51	77	56
11	74	53	82	55	71	55	78	53	75	58	71	54	73	58	81	55	78	35	81	44	.....	.....	73	50	74	52	78	51
12	76	55	84	52	82	59	79	54	76	56	79	55	79	54	86	49	84	37	85	51	.....	.....	77	54	82	50	86	45
13	84	55	87	56	89	57	80	56	81	57	85	57	86	57	88	52	85	40	85	54	.....	.....	80	56	85	53	89	47
14	90	60	91	59	93	61	85	58	85	62	91	59	91	66	91	53	90	42	90	62	.....	.....	84	59	88	58	92	54
15	91	57	94	57	95	65	90	62	87	62	94	61	92	69	94	59	93	50	95	63	.....	.....	86	63	90	60	91	53
16	92	59	95	64	95	60	92	65	88	65	93	62	91	62	98	59	96	50	96	61	.....	.....	88	66	93	61	98	54
17	94	67	97	66	95	66	93	67	89	69	94	65	90	66	101	62	99	53	98	67	.....	.....	89	70	95	63	100	57
18	87	68	87	69	85	68	93	68	82	67	86	66	84	62	104	63	101	56	96	66	.....	.....	90	71	98	71	.....	.....
19	85	66	91	66	88	65	90	68	81	68	84	64	88	65	102	65	99	57	90	61	.....	.....	86	68	99	68	103	60
20	91	65	97	67	92	67	88	68	87	69	90	64	91	65	103	70	96	57	95	70	.....	.....	90	68	97	70	101	67
21	96	73	97	73	92	67	96	70	90	70	91	69	80	66	99	69	100	64	93	68	.....	.....	89	69	94	72	98	67
22	90	68	96	69	92	66	92	68	90	70	95	67	93	62	98	72	92	66	91	68	.....	.....	88	67	89	71	96	68
23	93	68	93	72	92	68	95	70	89	70	93	68	92	62	95	70	88	68	92	66	.....	.....	85	69	84	69	93	60
24	92	72	93	77	96	70	95	75	87	72	93	70	94	68	90	69	88	67	90	72	.....	.....	87	68	90	69	98	67
25	92	73	94	75	97	72	92	77	88	73	94	72	96	74	93	72	89	72	92	76	.....	.....	88	73	92	71	97	69
26	94	74	98	73	97	74	92	74	91	72	97	71	95	74	97	69	94	62	95	72	.....	.....	91	68	95	74	100	68
27	97	70	99	73	98	70	95	73	93	72	100	70	95	71	100	74	98	65	98	72	.....	.....	92	73	97	77	101	71
28	92	72	94	75	94	71	97	75	87	71	92	70	89	69	103	74	99	65	98	73	.....	.....	92	75	98	74	104	70
29	93	68	93	72	87	70	93	72	86	69	88	68	84	67	102	72	99	67	97	72	.....	.....	90	73	99	74	98	72
30	90	69	96	71	80	70	97	72	91	71	88	70	81	66	104	75	98	66	98	72	.....	.....	92	72	98	76	96	72
Mns.	87.9	63.8	91.1	66.7	88.9	64.7	89.7	66.7	85.2	65.9	87.5	63.4	85.2	63.1	93.8	65.7	90.2	56.8	89.8	63.3	.....	.....	84.1	64.4	88.9	65.5	b93.6	b62.4

TABLE 3.—*Maximum and minimum temperatures at selected stations for June, 1913. District No. 7*—Continued.

Date.	Tennessee.				Arkansas.																Mississippi.					
	Kenton.		Memphis.		Bentonville.		Dardanelle.§§		El Dorado.§§		Fort Smith.		Hardy.		Little Rock.		Pine Bluff.§§		Texarkana.§§		Wynne.§§		Clarksdale.§§		Corinth.§§		Greenville.§§	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	92	71	91	72	92	64	94	65	94	66	95	67	100	67	94	70	96	66	97	65	98	71	94	68	95	70	97	69
2....	92	68	91	66	92	66	94	65	95	67	98	69	95	65	95	73	98	65	98	65	89	66	96	71	96	70	98	68
3....	84	67	81	69	86	65	84	66	93	68	89	72	82	64	83	71	90	68	95	67	86	67	93	73	90	66	94	72
4....	89	62	87	69	90	64	89	66	94	68	95	70	89	64	88	68	93	68	99	67	92	64	92	66	89	66	92	67
5....	91	67	90	73	89	62	94	64	95	68	93	68	91	67	92	69	94	67	94	67	95	68	93	68	92	67	94	70
6....	93	66	87	66	86	63	92	67	92	67	92	67	91	67	91	72	93	69	98	64	96	69	92	72	89	71	93	69
7....	89	65	86	69	83	66	89	70	93	68	88	71	90	64	92	70	94	67	98	67	95	67	92	70	84	68	94	69
8....	78	60	70	62	67	54	77	68	89	68	82	65	74	55	76	60	83	68	92	67	71	63	86	70	82	66	90	70
9....	71	56	66	60	69	54	70	60	69	62	72	61	71	56	65	60	68	61	74	60	68	61	67	64	72	60	68	64
10....	76	52	75	58	73	52	76	59	72	61	76	61	74	52	73	58	77	59	77	60	81	55	76	61	74	58	76	61
11....	80	48	77	56	75	45	79	51	76	55	78	55	76	46	76	56	79	55	82	54	78	62	79	53	76	50	79	54
12....	83	45	80	58	79	45	82	52	82	51	81	54	81	48	80	57	83	51	87	54	82	48	83	50	82	48	85	53
13....	87	48	83	61	81	49	86	50	85	54	85	57	85	49	84	57	86	52	87	60	87	51	88	50	88	52	87	55
14....	90	59	88	64	86	54	88	53	89	54	88	53	80	52	87	60	89	54	91	51	91	55	91	55	92	54	92	59
15....	90	53	89	67	89	58	90	56	91	57	91	60	93	62	90	63	93	58	93	60	74	53	93	57	94	54	96	60
16....	95	53	90	68	91	58	95	60	92	62	92	66	94	58	93	66	95	61	95	64	96	54	94	60	97	58	96	64
17....	97	57	92	69	90	62	95	60	93	64	92	66	97	62	93	69	96	64	94	65	97	61	96	64	98	62	98	68
18....	100	60	93	71	91	61	93	62	95	67	93	69	99	64	95	70	98	65	92	65	99	65	98	67	100	63	96	71
19....	100	63	94	75	86	64	95	64	97	68	91	70	101	70	95	73	99	70	96	66	98	66	99	69	100	66	98	73
20....	98	67	93	73	91	65	95	63	98	68	96	86	101	66	95	71	100	67	98	64	101	66	98	71	98	70	99	72
21....	95	68	89	72	93	64	95	67	91	66	94	70	97	65	92	72	93	68	97	66	97	72	93	69	96	68	93	69
22....	95	72	90	74	90	64	89	66	92	66	92	70	93	69	90	68	94	70	99	69	97	72	93	71	94	70	94	71
23....	88	66	86	73	90	68	90	68	90	70	93	70	89	68	88	69	92	69	95	70	91	70	92	68	95	68	94	71
24....	89	66	88	74	88	71	90	69	92	71	90	73	90	68	89	73	91	71	92	69	80	70	93	70	92	70	95	73
25....	92	72	92	75	88	75	92	72	92	70	92	77	90	73	89	74	92	.....	91	72	96	73	95	73	94	70	96	73
26....	96	67	95	77	93	70	95	67	92	70	95	71	95	67	93	71	97	68	95	71	98	70	96	69	99	69	99	71
27....	97	71	96	79	95	64	96	69	91	74	95	74	99	72	92	75	96	73	94	72	97	73	95	73	99	72	98	74
28....	97	68	95	73	94	69	97	71	90	74	92	75	98	70	94	76	96	73	94	74	100	74	97	73	102	71	97	74
29....	96	70	93	72	94	69	96	70	94	74	95	74	100	71	95	72	97	70	97	74	100	63	94	69	100	68	97	74
30....	97	73	86	75	94	67	97	70	93	73	98	74	101	72	96	75	98	73	95	71	97	74	93	75	92	70	94	76
Mns..	90.6	62.7	87.1	69.0	86.9	61.7	89.8	63.7	90.0	65.7	90.1	67.3	90.5	63.1	88.5	67.9	91.7	65.2	92.9	65.3	90.9	64.8	91.4	66.3	91.7	62.3	92.6	67.8

Date.	Mississippi.						Louisiana.																	
	Kosciusko.§§		Natchez.§§		Vicksburg.		Alexandria.§§		Baton Rouge.§§		Covington.§§		Lafayette.§§		Lake Charles.§§		Monroe.§§		New Orleans.		Robeline.§§		Schriever.§§		Shreveport.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	91	67	99	66	91	70	96	66	92	69	93	65	94	68	97	61	96	66	92	72	95	61	94	67	94	71
2.....	96	65	.....	67	93	74	97	68	94	72	95	66	93	70	94	62	97	68	93	74	97	63	94	68	95	72
3.....	93	66	91	69	90	73	94	65	92	71	94	67	91	70	91	60	94	68	91	73	93	65	92	69	94	71
4.....	94	65	92	69	90	71	95	67	92	70	95	68	93	68	92	65	96	68	92	71	96	62	94	66	94	71
5.....	93	67	89	71	89	69	95	69	93	69	95	71	95	69	94	63	95	70	91	75	95	66	96	68	93	71
6.....	90	67	92	65	87	67	94	69	92	67	90	69	92	67	93	61	93	67	85	71	97	66	92	65	92	69
7.....	91	68	85	66	88	68	90	68	94	69	94	68	89	71	96	65	92	68	86	73	96	67	90	67	94	72
8.....	92	67	92	68	91	69	76	68	89	69	93	69	89	73	95	67	90	69	81	72	97	65	90	69	90	68
9.....	68	65	83	68	72	64	80	63	84	68	91	67	85	.....	83	65	72	67	86	71	75	68	90	68	74	64
10.....	70	61	69	64	67	60	70	63	75	67	72	69	80	.....	77	62	68	62	74	62	68	62	76	70	69	61
11.....	75	49	70	56	75	54	77	60	73	60	74	60	75	61	77	56	76	56	69	59	79	60	74	62	76	59
12.....	81	50	68	54	80	57	80	56	79	58	86	57	81	63	79	57	80	54	76	65	79	52	80	64	79	59
13.....	86	52	84	53	85	62	85	56	84	55	90	53	85	56	86	56	86	56	81	66	86	51	87	56	84	60
14.....	90	55	89	56	90	63	90	56	85	57	93	54	87	56	89	56	89	58	86	67	91	50	90	56	88	60
15.....	93	56	91	59	92	66	90	56	87	64	93	55	89	63	88	62	91	61	84	71	92	56	88	66	90	65
16.....	94	60	89	68	92	69	90	70	86	69	92	58	80	70	82	61	92	65	83	73	90	65	86	71	90	68
17.....	96	61	89	69	93	69	90	72	88	70	94	69	86	72	83	61	90	67	89	74	89	66	93	70	89	70
18.....	99	65	93	58	93	73	95	68	94	68	98	65	93	69	95	62	96	67	97	75	94	64	95	67	88	69
19.....	100	69	94	73	97	73	97	63	96	72	100	68	96	71	96	67	96	71	96	78	97	66	96	71	94	70
20.....	95	67	92	69	95	70	96	70	92	74	92	69	94	73	93	68	96	72	88	74	98	67	92	74	98	73
21.....	93	68	89	66	87	68	90	68	94	69	92	67	91	73	90	67	92	68	88	68	96	65	93	69	90	70
22.....	93	67	90	60	87	69	90	69	91	72	93	65	89	69	92	64	93	71	87	65	94	68	92	67	90	72
23.....	93	67	90	61	88	72	92	69	90	74	93	67	90	69	91	66	94	71	88	73	94	70	92	67	90	72
24.....	94	69	91	63	90	71	92	70	91	70	93	68	91	70	91	66	94	70	89	74	94	69	94	68	91	72
25.....	94	67	92	59	90	70	93	70	92	68	94	67	91	70	95	65	95	69	88	73	95	65	91	68	92	71
26.....	96	68	92	62	94	73	93	70	91	69	95	70	92	71	90	66	94	70	85	74	93	66	90	70	92	73
27.....	95	71	90	67	92	75	90	71	85	72	88	75	90	72	90	67	92	75	84	74	89	67	89	75	88	74
28.....	96	70	91	65	92	73	86	73	87	71	93	71	90	74	92	69	92	73	89	74	93	73	93	72	88	74
29.....	98	72	93	62	94	72	92	72	91	70	95	69	93	74	94	67	94	71	90	73	95	69	90	72	91	73
30.....	93	69	89	66	86	73	92	71	90	71	88	72	91	72	95	69	91	72	85	75	97	70	91	70	96	73
Mean.....	91.1	64.3	88.2a	64.0	88.3	68.6	89.6	66.5	88.8	68.1	91.6	65.9	89.2	68.7b	90.0	63.4	90.5	67.0	86.4	71.3	91.5	64.1	90.1	67.7	89.1	68.9

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 8, TEXAS AND RIO GRANDE VALLEY.

B. BUNNEMEYER, District Editor.

GENERAL SUMMARY.

The month of June was cool and wet with less than the normal amount of sunshine. A marked feature of the weather was an unusually large number of cloudy days, the largest of record for June, resulting in comparatively low day temperatures. In the last 26 years there was but one June, that of 1890, in which the highest temperature of the month was lower than in June, 1913. The precipitation was in excess of the normal in nearly all sections of the district, but it was unevenly distributed. Over the eastern third of Texas the rainfall was generally deficient. The excess was greatest in southwestern Texas and in northeastern New Mexico. The number of rainy days was large when compared with the total rainfall for the month, and local showers occurred daily in some portion of the district. Severe hailstorms and heavy local rains did considerable damage in New Mexico to crops, roads, and bridges, and interrupted traffic. In south Texas the cloudy weather and frequency of precipitation resulted in greater activity of the boll weevil, but were favorable for late corn. The average number of days with 0.01 inch or more of precipitation was 10 in Colorado, 9 in New Mexico, and 7 in Texas. Snow was observed to fall on some of the higher mountain peaks in New Mexico, but none occurred at any of the reporting stations.

The greatest and least monthly amounts of precipitation were, respectively: In Colorado, 3.78 inches at Hermit and 1.23 inches at Manassa; in New Mexico, 9.90 inches at Harvey's Upper Ranch and 0.18 inch at Bluewater; and in Texas, 22.93 inches at Montell and 0.50 inch at Riverside. Amounts of 2.50 inches or more in 24 consecutive hours occurred at 2 stations in New Mexico and at 27 in Texas, the heaviest being 20.60 inches at Montell, Tex., on the 28th–29th.

TEMPERATURE.

The monthly mean temperature was normal in Colorado, 2° below normal in New Mexico, and 2.1° below in Texas. The greatest deficiency of temperature occurred along the Texas coast and in the middle and lower portions of the Rio Grande Valley. On account of the cloudy weather the average daily range of temperature was from 2° to 4° less than normal and varied from about 7° on the Texas coast to about 38° in portions of New Mexico. There were no well-defined warm or cool periods, but in general the warmest days occurred from the 1st to 4th, and from the 24th to 30th, and the coolest nights from the 7th to 14th. The highest and lowest temperatures reported were, respectively, in Colorado, 85° at Saguache on the 27th, and 21° at Hermit on the 13th; in New Mexico, 105° at Willard on the 30th, and 28° at Senorito on the 30th; and in Texas, 104° at Fort Stockton on the 4th, and 50° at Marathon on the 4th, at Seymour on the 7th, and at Carmona on the 13th. The local monthly means ranged from 46.6° to 60.7° in Colorado, from 53° to 76.8° in New Mexico, and from 68.5° to 84.2° in Texas.

PRECIPITATION.

The rainfall was heavy throughout the Rio Grande watershed, except locally at a few stations in New Mexico. The excess was most marked over the Texas portion from Del Rio to Fort McIntosh, where the monthly amounts ranged from 5 to 13 inches. The average for the watershed was 2.62 inches, which is 1.57 inches more than the normal amount.

The Rio Pecos watershed also received an abundance of moisture. The excess was greatest in the extreme upper portion, where the monthly amounts ranged from 5 to nearly 10 inches. A slight deficiency occurred in the vicinity of Cloudcroft, N. Mex. The average for the drainage basin was 3.52 inches, or 1.71 inches more than normal.

The Texas watersheds from the Brazos eastward to the Sabine received less than the normal amount of precipitation, the deficiencies ranging from 0.21 inch for the Brazos to 1.57 inches for the Trinity. The Lavaca also showed a marked deficiency, but the remaining watersheds had excesses ranging from 0.72 inch for the Guadalupe watershed to 6.07 inches for that of the Nueces. The following are the monthly amounts in inches and hundredths for the various Texas watersheds: Nueces, 8.56; San Antonio, 3.64; Guadalupe, 3.72; Lavaca, 1.83; Colorado, 3.86; Brazos, 3.25; Trinity, 2.35; Neches, 2.96; Sabine, 2.23; and coastal plains, 4.84.

RIVER CONDITIONS.

The Rio Grande and Rio Pecos were well above low-water mark throughout the month, and the lower Rio Grande was nearly bank full between the 24th and 28th, but so far as reported no damage resulted from the high water. Good rises occurred in the middle and lower portions of the Colorado between the 18th and 24th; and torrential rains, of which special mention is made elsewhere in this summary, over the extreme upper Nueces watershed flooded that section during the last three days of the month. Old settlers there do not recall heavier rains or higher water. There were no rises of consequence in the other Texas streams.

TORRENTIAL RAINFALL AT MONTELL, TEX.

On the 28th a Gulf disturbance of moderate intensity moved inland near Corpus Christi, where a wind velocity of 50 miles per hour from the southeast was recorded. The storm apparently broke up over the upper Nueces watershed after giving copious rains in that section. The center of heaviest precipitation was at Montell, Uvalde County, where from 2.30 p. m. June 28 to 9 a. m. June 29 the fall amounted to 20.60 inches, being equivalent to an average rate of 1.11 inches per hour for 18½ consecutive hours. Uvalde, in the same county, and less than 30 miles southeast of Montell, reported a rainfall of 8.50 inches from 1 p. m. June 28 to 6 a. m. June 29. These rains caused considerable damage in that section, flooding the lowlands, washing away houses and stock, and interrupting traffic and communication by telegraph and telephone for several days. One person was drowned in the vicinity of Montell.

The rainfall at Montell is the heaviest 24-hour precipitation of record in Texas, and the next heaviest is 18 inches, occurring at Fort Clark on June 14–15, 1899. It is remarkable that these torrential rains should have occurred in the same section of the State and in corresponding months. Fort Clark, although in Kinney County, is only about 30 miles southwest of Montell. The normal rainfall for June in that section is less than 3 inches, and for the year does not exceed 24 inches.

TABLE 1.—*Climatological data for June, 1913. District No. 8, Texas and Rio Grande Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Colorado.																				
Blanca	Costilla	7,865	4	57.1	.....	80	26	31	11	38	2.86	.....	1.18	0	12	9	15	6	w.	Lewis F. Botens.
Cumbres	Conejos	10,015	6	.....	.....	.....	.....	.....	.....	.....	1.28	.....	0.50	0	11	8	20	2	sw.	Mrs. Ida M. Lively.
Garnett	Costilla	7,576	20	58.2	+ 0.3	83	16†	31	13	43	2.23	+ 1.64	1.04	0	8	9	14	7	sw.	Charles Speiser.
Hermit	Hinsdale	9,843	6	46.6	.....	71	20	21	13	42	3.78	.....	1.52	T.	12	16	8	6	.....	Marion Mason.
La Veta Pass	Costilla	9,000	3	.....	.....	.....	.....	.....	.....	.....	2.06	.....	0.92	0	11	2	18	10	w.	Clara M. Wright.
Manassa	Conejos	7,700	7	58.6	.....	81	15†	33	13	43	1.23	.....	0.70	0	3	5	15	10	sw.	J. B. Chapman.
Platoro	do	7,675	6	.....	.....	.....	.....	.....	.....	.....	3.08	.....	0.69	0	14	16	9	5	w.	Walter R. Hook.
Saguache	Saguache	7,740	21	60.7	+ 1.1	85	27	35	13	46	2.40	+ 1.51	0.87	0	6	4	1	25	sw.	Eugene Williams.
San Luis	Costilla	7,794	22	56.4	− 1.8	79	15	32	11	42	1.92	+ 1.22	1.05	0	6	10	19	1	sw.	P. B. Albright.
Wagon Wheel Gap Experiment Station.	Mineral	9,616	14	50.4	+ 0.3	73	30	29	13	39	2.98	+ 2.28	0.87	0.3	12	4	16	10	.....	U. S. Weather Bureau.
New Mexico.																				
Agricultural College	Dona Ana	3,863	52	74.9	− 4.0	96	30	48	8	40	2.63	+ 2.07	0.77	0	9	14	15	1	se.	N. Mex. Agricultural College.
Alamogordo (near)	Otero	4,338	16	76.4	− 1.0	100	30	52	5	41	1.66	+ 0.96	0.71	0	5	13	1	16	sw.	Edward Le Breton.
Alamogordo	do	4,320	4	.....	.....	98	30	.....	.....	.....	1.05	.....	0.43	0	4	21	0	9	s.	Agent E. P. & S. W. R. R.
Alamos Ranch	Sandoval	7,800	3	.....	.....	.....	.....	.....	.....	.....	5.57	.....	2.51	0	11	21	4	5	sw.	H. H. Brooks.
Albuquerque	Bernalillo	5,000	37	.....	.....	.....	.....	.....	.....	.....	0.99	+ 0.22	0.72	0	6	19	11	0	e.	Pitt Ross, C. E.
Ancho	Lincoln	6,112	4	.....	.....	.....	.....	.....	.....	.....	1.73	.....	0.55	0	6	.....	.....	.....	.....	Agent E. P. & S. W. R. R.
Anchor Mine	Taos	10,600	2	.....	.....	.....	.....	.....	.....	.....	3.62	.....	0.85	0	12	5	9	16	sw.	Charles H. Brigham.
Artesia	Eddy	3,350	5	74.0	.....	102	25	50	2	44	1.84	.....	0.95	0	6	20	7	3	se.	Will Benson, C. E.
Aspen Grove Ranch	Rio Arriba	9,000	4	.....	.....	.....	.....	.....	.....	.....	2.63	.....	1.21	0	7	0	30	0	.....	Junius D. Maupin.
Bateman's Ranch	do	8,900	4	.....	.....	.....	.....	.....	.....	.....	3.17	.....	1.43	0	6	16	13	1	w.	John W. Bateman.
Berino	Dona Ana	3,788	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. C. Richaberger.
Bluewater	Valencia	6,732	11	61.5	− 4.0	88	15†	33	3	52	0.18	− 0.20	0.15	0	2	10	18	2	s.	Bluewater Development Co.
Boaz	Chaves	4,154	4	71.4	.....	97	25	49	18	41	4.03	.....	0.93	0	13	12	17	1	se.	William Horner.
Capitan	Lincoln	6,348	4	.....	.....	.....	.....	.....	.....	.....	1.93	.....	0.75	0	6	6	3	21	nw.	Agent E. P. & S. W. R. R.
Carlsbad	Eddy	3,120	18	76.8	− 2.1	99	26	56	9	39	3.93	+ 1.66	1.06	0	11	17	10	3	se.	U. S. Reclamation Service.
Carrizozo	Lincoln	5,429	5	70.7	.....	93	14	50	5†	39	1.97	.....	0.89	0	12	13	17	0	e.	Agent E. P. & S. W. R. R.
Cerrillos (near)	Santa Fe	5,700	1	67.8	.....	92	25†	44	5†	46	3.25	.....	0.92	0	10	6	22	2	se.	Irving C. Sweet.
Chama	Rio Arriba	7,851	15	57.0	− 1.6	82	15	32	11	44	1.87	+ 1.14	0.50	0	6	18	12	0	sw.	Frank C. Johnson.
Cloudcroft	Otero	8,650	11	56.0	− 0.9	72	24†	40	5	26	0.75	− 0.77	0.25	0	5	14	0	16	nw.	Agent E. P. & S. W. R. R.
Corona	Lincoln	6,666	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Do.
Coyote	do	5,800	4	.....	.....	.....	.....	.....	.....	.....	1.79	.....	0.60	0	7	15	11	4	se.	Do.
Cundiyo	Santa Fe	6,889	4	.....	.....	.....	.....	.....	.....	.....	1.88	.....	0.60	0	8	13	12	5	w.	Juan Vijil.
Demonstration Farm	San Miguel	6,800	4	.....	.....	.....	.....	.....	.....	.....	5.76	.....	0.94	0	15	.....	.....	.....	.....	C. C. Clayton.
Duran	Torrance	6,272	4	66.6	.....	88	3†	48	8	38	4.69	.....	1.00	0	13	9	11	10	sw.	Agent E. P. & S. W. R. R.
Elida	Roosevelt	4,345	1	.....	.....	.....	.....	.....	.....	.....	7.92	.....	1.98	0	8	.....	.....	.....	ne.	A. J. Evans.
Escondido	Otero	4,014	4	.....	.....	.....	.....	.....	.....	.....	0.79	.....	0.28	0	6	15	9	6	se.	Agent E. P. & S. W. R. R.
Espanola	Rio Arriba	5,590	15	66.3	− 1.5	91	21	40	11	45	1.58	+ 0.88	0.50	0	5	17	7	6	sw.	Mrs. E. F. McBride.
Estancia	Torrance	6,140	8	63.2	.....	88	14†	34	6	50	1.07	+ 0.46	0.28	0	7	12	16	2	sw.	Geo. H. Van Stone.
Fort Stanton	Lincoln	6,231	36	63.9[d]	− 3.1	89[e]	26	38	6	42[e]	2.81	+ 1.04	1.11	0	15	10	16	4	se.	U. S. Sanitarium.
Fort Sumner	Guadalupe	3,960	5	70.0	.....	93	26	46	6	44	4.87	.....	1.84	0	17	14	9	7	se.	Peter Yocky.
Gallinas	Lincoln	6,635	4	.....	.....	93	24†	47	11	.....	1.64	.....	0.35	0	10	3	19	8	s.	Agent E. P. & S. W. R. R.
Gallinas Planting Sta	San Miguel	7,500	6	58.0	.....	84	30	38	7†	42	7.65	.....	2.78	0	17	11	13	6	sw.	U. S. Forest Service.
Glorieta Ranch	Socorro	6,300	3	.....	.....	.....	.....	.....	.....	.....	0.54	.....	0.13	0	8	21	6	3	s.	Chas M. Crossman.
Harvey's Upper Ranch	San Miguel	9,400	4	54.6	.....	75	15†	36	6†	37	9.90	.....	2.10	0	18	6	18	6	w.	R. B. Schoonmaker.
Hobbs	Eddy	.....	.....	73.4	.....	98	1†	55	10†	39	3.28	.....	0.95	0	11	10	8	12	se.	E. H. Byers.
Hondo Reservoir	Chaves	3,904	4	72.0	.....	97	25	54	9	41	3.92	.....	1.75	0	10	12	15	3	se.	U. S. Reclamation Service.
Jemez Springs	Sandoval	6,100	3	64.1	.....	86	26†	40	11	36	3.77	.....	0.85	0	9	12	6	12	sw.	Mrs. L. L. Shields.
Knowles (near)	Eddy	4,300	3	72.4	.....	96	25†	56	10†	37	2.05	.....	0.55	0	12	11	11	8	se.	J. W. Mosley.
Laguna	Valencia	5,840	8	70.6	.....	97	23†	40	4	47	1.35	+ 0.82	1.35	0	1	.....	.....	.....	w.	Gus Weiss.
Lagunita	Guadalupe	4,500	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	P. A. Turnbull.
Lake Valley	Sierra	5,412	8	.....	.....	.....	.....	.....	.....	.....	0.97	.....	0.52	0	6	14	16	0	sw.	William P. Keil.
Lakewood (near)	Eddy	3,170	1	72.6	.....	98	25†	53	1†	44	1.39	.....	0.62	0	6	23	7	0	se.	Mrs. J. K. Boyd.
Lanark	Dona Ana	4,156	14	.....	.....	.....	.....	.....	.....	.....	0.71	− 0.08	0.34	0	6	0	28	2	e.	Agent So. Pac. R. R.
Las Vegas	San Miguel	6,385	26	62.2	− 3.3	87	13	41	14	41	4.65	+ 2.73	0.94	0	13	5	13	12	sw.	New Mexico Normal Univ.
Los Lunas (near)	Valencia	4,900	24	71.3	− 1.3	95	16	47	9	46	2.57	+ 1.88	2.00	0	5	12	18	0	.....	Richard Pohl.
Magdalena	Socorro	6,557	8	65.8	.....	90	30	42	9	38	1.82	+ 0.66	0.50	0	8	9	21	0	sw.	Wm. Pender.
Mescalero	Otero	6,627	2	60.2	.....	82	26	39	5†	39	5.12	.....	1.98	0	18	12	10	8	sw.	Rev. R. H. Harper.
Mineral Hill	San Miguel	7,050	8	.....	.....	.....	.....	.....	.....	.....	5.57	.....	2.33	0	9	1	23	6	sw.	W. M. Nelson.
Monterey	Otero	4,436	4	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.	0	0	20	4	6	s.	Agent E. P. & S. W. R. R.
Mountainair	Torrance	6,547	11	65.1	− 1.3	92	1†	38	5	52	0.79	− 0.33	0.41	0	6	11	14	5	sw.	Miss Julia Hill.
Mountain Park	Otero	.....	11	.....	.....	.....	.....	.....	.....	.....	2.40	.....	0.42	0	12	10	14	6	e.	Charles E. Beasley.
Newman	do	3,989	4	.....	.....	.....	.....	.....	.....	.....	2.94	.....	0.86	0	6	19	0	11	w.	Agent E. P. & S. W. R. R.
Nogal (near)	Lincoln	8,000	.....	.....	.....	.....	.....	.....	.....	.....	4.44	.....	1.13	0	16	9	15	6	s.	H. E. Kellar.
Noria	Dona Ana	4,114	4	.....	.....	.....	.....	.....	.....	.....	2.78	.....	1.29	0	5	23	2	5	w.	Agent E. P. & S. W. R. R.
Orogrande	Otero	4,171	4	.....	.....	.....	.....	.....	.....	.....	1.81	.....	0.50	0	7	11	18	1	e.	Do.
Oscura	Lincoln	5,016	4	.....	.....	.....	.....	.....	.....	.....	0.83	.....	0.35	0	9	.....	.....	.....	.....	Eugene F. Jones.
Otis	Eddy	3,100	4	.....	.....	.....	.....	.....	.....	.....	4.16	.....	1.09	0	9	16	9	5	se.	A. M. Hove.
Pastura	Guadalupe	5,285	4	.....	.....	.....	.....	.....	.....	.....	3.89	.....	1.64	0	8	4	11	15	s.	Agent E. P. & S. W. R. R.
Placitas (near)	Bernalillo	8,000	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. C. Ellis.
Plainview (near)	Chaves	4,300	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	L. P. Adair.
Red River Canyon	Taos	8,956	6	57.6	.....	82	30	30	11	44	4.40	.....	1.00	0	9	10	19	1	e.	Mrs. L. R. Penn.
Richland	Chaves	.....	.....	71.0[j]	.....	95[j]	4†	42[j]	6	50[j]	2.57	.....	1.18	0	4	12	12	6	s.	K. H. Embree.
Rincon	Dona Ana	4,030	19	74.4	− 2.2	97	30	45	5†	48	1.50	+ 0.83	0.75	0	4	6	22	2	se.	Charles H. Raitt.
Rio Grande Dam	Sierra	4,265	23	76.5	+ 1.4	99	30	54[e]	9	39[e]	0.86	− 0.12	0.54	0	3	15	15	0	w.	U. S. Reclamation Service.
Rio Grande Indus. Schl	Bernalillo	5,000	2	68.0	.....	91	15	37	10	44	1.45	.....	0.69	0	6	14	9	7	sw.	Rev. A. C. Heyman.
Rosedale	Socorro	6,910	8	63.6	.....	85	27	40	9†	36	1.27	.....	0.40	0	8	14	13	3	w.	Mrs. J. J. McInness.
Roswell	Chaves	3,578	19	72.4	− 3.9	94	25	55	6	37	4.17	+ 2.09	1.09	0	11	11	15	4	s.	U. S. Weather Bureau.
San Marcial	Socorro	4,439	16	74.7	+ 0.1	100	29	48	10	47	1.04	+ 0.43	0.56	0	5	14	7	9	se.	Agent S. T. & S. F. R. R.
San Rafael	Valencia	6,509	16	68.0	+ 1.0	98	6†	40	4†	54	1.18	+ 0.49	1.15	0	2	18	1	11	nw.	Dr. C. M. Grover.
Santa Fe	Santa Fe	7,013	40	62.8	− 3.4	82	26	40	11	30	4.26	+ 3.22	1.24	0	10	8	21	1	se.	Section Center.
Santa Fe Canyon	do	8,000	3	.....	.....	.....	.....	.....	.....	.....	6.20	.....	1.33	0	11	15	13	2	e.	Mrs. E. M. Gregory.
Santa Rosa	Guadalupe	4,624	12	70.3	.....	95	26	49	6	42	2.68	+ 1.12	0.70	0	14	6	13	11	s.	H. V. B. Smith.
Senorito (near)	Sandoval	7,500	1	54.8	.....	80	3†	28	30	51	5.81	.....	1.12	0	12	9	7	14	w.	James Curry.
Socorro	Socorro	4,600	21	71.5	− 3.8	96	17†	47	26	48	1.54	+ 0.96	0.67	0	6	22	5	3	se.	J. J. Leeson.
South Fork	Taos	8,405	1	.....	.....	.....	.....	.....	.....	.....	1.84	.....	0.60	0	9	18	0	12	se.	Frank Hamm, jr.
Stanley	Santa Fe	6,317	4	63.4	.....	89	15†	37	6	48	3.99	.....	1.50	0	7	10	5	15	e.	D. C. Kinsell.
Tajique (near)	Torrance	9,820	3	54.4	.....	71	27	37	8†	24	2.47	.....	0.87	0	11	12	14	4	.....	A. Rea.
Taos	Taos	6,983	18	62.0	− 2.3	85	26	40	11†	43	1.52	+ 0.46	0.50	0	9	12	18	0	s.	Alexander Gusdorf.
Taos Canyon	do	8,959	4	.....	.....	.....	.....	.....	.....	.....	2.53	.....	0.73	0	15	11	4	15	.....	L. Martinez, jr.
Tecolote	Lincoln	6,539	4	65.9	.....	84	2†	48	9	30	1.99	.....	0.40	0	9	9	4	17	w.	Agent E. P. & S. W. R. R.
Three Rivers	Otero	4,559	4	.....	.....	95	26	54	8	.....	0.60	.....	0.23	0	5	14	10	6	sw.	Do.
Tijeras Canyon	Bernalillo	6,214	3	.....	.....	.....	.....	.....	.....	.....	1.76	.....	0.74	0	11	22	7	1	sw.	U. S. Forest Service.
Torrance	Torrance	6,433	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agent E. P. & S. W. R. R.
Tres Piedras	Taos	8,076	10	57.6	.....	80	30	35	11	42	2.62	+ 1.73	0.92	0	12	13	4	13	sw.	U. S. Forest Service.
Truchas	Rio Arriba	7,935	4	57.2	.....	78	26	38	9	31	2.03	.....	0.70	0	15	4	15	11	s.	Miss T. Esquibal.

TABLE 1.—*Climatological data for June, 1913. District No. 8*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
New Mexico—Contd.																				
Tularosa	Otero	4,436	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. L. Fairless.
Vaughn	Guadalupe	5,952	4	.....	.....	94	18†	46	8	.....	3.00	.....	2.00	0	5	19	5	6	sw.	Agent E. P. & S. W. R. R.
Virsylvia	Taos	7,500	3	67.1	.....	85	20	42	11	30	1.47	.....	1.06	0	9	15	13	2	sw.	Dr. I. N. Woodman.
Willard	Torrance	6,086	1	70.0	.....	105	30	36	6	65	0.51	.....	0.20	0	5	9	15	6	se.	Dr. V. S. Cheyney.
Winsors	San Miguel	8,200	17	53.0	− 1.8	78	2†	33	30	44	5.35	+ 3.03	1.85	0	20	9	16	5	sw.	James F. Matty.
Texas.																				
Abilene	Taylor	1,738	28	77.2	− 1.0	96	2	60	9	27	1.99	− 1.18	0.84	0	7	6	8	16	s.	U. S. Weather Bureau.
Albany	Shackelford	1,429	19	76.0	− 3.0	100	1†	54	13	39	3.78	+ 0.20	1.46	0	6	13	5	12	.....	N. L. Bartholomew.
Alice	Jim Wells	209	2	80.0	.....	99	1	67	12†	28	8.65	.....	4.00	0	13	14	4	12	se.	R. M. Boerum.
Alpine	Brewster	4,482	3	.....	.....	.....	.....	.....	.....	.....	3.12	.....	0.90	0	8	14	0	16	s.	H. B. Cowles.
Alvin	Brazoria	49	15	78.2	.....	100	1	62	14	34	1.91	− 2.57	0.95	0	5	8	9	13	s.	Alvin Japanese Nursery.
Anahuac	Chambers	23	4	.....	.....	.....	.....	.....	.....	.....	1.69	.....	0.57	0	6	.....	.....	.....	.....	Lone Star Canal Co.
Antelope	Jack	.....	2	.....	.....	.....	.....	.....	.....	.....	3.55	.....	0.84	0	8	16	8	6	.....	Paul Rudolph.
Aspermont	Stonewall	.....	2	.....	.....	.....	.....	.....	.....	.....	5.41	.....	1.60	0	8	13	1	16	se.	Bryant Link Co.
Austin	Travis	593	57	77.0	− 4.0	93	1†	58	10	33	1.83	− 0.68	0.80	0	11	11	9	10	se.	A. Deussen.
Ballinger	Runnels	1,637	17	77.4	− 2.6	99	1†	59	13	33	2.03	− 0.90	0.63	0	7	8	11	11	s.	E. M. Eubank.
Barstow	Ward	2,573	6	77.2	.....	99	25	59	5	36	1.46	.....	0.85	0	3	2	27	1	se.	F. P. Ingerson.
Bay City	Matagorda	53	3	77.8	.....	89	1†	63	14	22	1.34	.....	0.51	0	7	10	8	12	s.	E. C. Quereau.
Beaumont	Jefferson	29	12	80.6	+ 0.5	95	18	65	11†	24	3.64	− 1.27	1.34	0	6	13	0	17	se.	John Bender.
Beeville	Bee	225	17	78.5	− 3.9	100	1	60	12	34	5.28	+ 2.22	1.60	0	11	8	4	18	se.	Geo. E. Faupel.
Big Spring	Howard	2,396	15	77.8	− 3.4	101	6	58	8†	39	3.28	+ 1.42	1.18	0	11	12	15	3	s.	B. Reagan.
Blanco	Blanco	1,350	17	79.8	+ 0.9	97	3	57	13	33	7.17	+ 5.29	1.72	0	9	14	9	7	s.	R. C. Crist.
Boerne	Kendall	1,412	21	74.6	− 4.5	95	1	54	2†	40	6.05	+ 3.72	1.36	0	12	10	13	7	e.	F. W. Schweppe.
Booth	Fort Bend	81	12	.....	.....	.....	.....	.....	.....	.....	3.02	− 0.50	1.83	0	6	21	0	9	se.	T. R. Booth.
Bowie	Montague	1,113	18	79.0	− 0.6	103	2	57	12	33	2.68	− 1.01	0.82	0	10	10	3	17	s.	Craig Anderson.
Brady	McCulloch	1,500	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. J. O. Wallace.
Brazoria	Brazoria	25	24	77.9	− 1.8	93	1†	64	1†	29	3.35	− 1.33	1.37	0	9	19	5	6	s.	Mrs. M. A. Stevens.
Brazos	Palo Pinto	801	4	.....	.....	.....	.....	.....	.....	.....	3.16	.....	1.02	0	11	9	15	6	s.	Robt. E. Boyett.
Brenham	Washington	350	28	79.6	− 1.6	95	20	63	12	25	2.76	− 1.61	1.18	0	6	11	7	12	s.	Mrs. B. F. Sloan.
Bridgeport	Wise	754	4	.....	.....	.....	.....	.....	.....	.....	2.64	.....	0.65	0	8	5	11	14	s.	Claude Strange.
Brighton	Nueces	12	20	80.8	− 0.7	92	9†	68	23	24	5.10	+ 3.20	3.48	0	8	18	5	7	se.	G. H. Ritter.
Brownsville	Cameron	38	49	78.2	− 4.3	91	1	65	10	22	4.96	+ 2.68	1.25	0	16	.....	.....	.....	se.	U. S. Weather Bureau.
Brownwood	Brown	1,342	21	77.4	− 3.5	101	1	53	14	38	4.01	+ 1.11	1.65	0	7	10	10	10	s.	Mrs. Pearl Smith.
Buena Vista	Pecos	.....	1	.....	.....	.....	.....	.....	.....	.....	0.91	.....	0.45	0	3	25	2	3	.....	W. H. Denis.
Cameron	Milam	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. E. Watts.
Carmona	Polk	330	5	77.2	.....	95	1	50	13	35	2.46	.....	0.82	0	8	11	13	6	s.	M. S. Spitler.
Carrizo Springs	Dimmit	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. E. Cook.
Claytonville	Fisher	2,100	18	76.7	− 1.9	99	3	57	9	34	2.34	− 1.17	1.01	0	9	11	1	18	se.	Wm. Lanius.
Clifton	Bosque	671	2	.....	.....	.....	.....	.....	.....	.....	3.36	.....	0.83	0	8	1	25	4	s.	R. M. Jones.
Coleman	Coleman	1,710	19	78.0	− 0.1	101	3	58	13	32	4.85	+ 1.65	3.03	0	5	4	13	13	s.	J. E. Stevens.
Collegeport	Matagorda	.....	1	74.4	.....	94	27	58	11†	28	.....	.....	.....	0	.....	3	16	11	se.	H. A. Clapp.
College Station	Brazos	308	23	80.7	0.0	99	20	59	12	33	1.53	− 1.80	0.58	0	12	4	4	22	s.	Prof. G. S. Fraps.
Colorado	Mitchell	2,066	19	76.6	− 4.1	98	1†	52	7	36	2.14	+ 0.49	1.71	0	6	.....	.....	.....	se.	R. M. Webb.
Columbus	Colorado	206	9	.....	.....	.....	.....	.....	.....	.....	2.06	.....	0.88	0	4	16	4	10	se.	Mrs. Sophie Bridge.
Comanche	Comanche	1,358	7	78.4	.....	102	1	60	13	30	4.48	.....	1.85	0	10	0[a]	22[a]	7[a]	se.	R. V. Nabers.
Corpus Christi	Nueces	20	26	78.2	− 2.4	87	1	71	12	15	3.95	+ 1.21	1.84	0	15	6	16	8	se.	U. S. Weather Bureau.
Corsicana	Navarro	445	24	79.2	− 1.4	96	2	59	12	27	1.40	− 2.09	0.70	0	4	14	6	10	s.	D. H. Winn.
Cotulla	La Salle	425	6	.....	.....	.....	.....	.....	.....	.....	4.70	.....	1.80	0	8	.....	.....	.....	.....	Holland Agricultural Co.
Crockett	Houston	350	9	80.0	.....	97	1†	58	12	33	1.89	.....	0.51	0	6	17	7	6	s.	A. M. Rencher.
Cuero	De Witt	177	23	80.6	− 2.6	98	1	62	19	29	2.45	− 1.59	0.62	0	12	10	5	15	s.	H. R. Frobese.
Dallas	Dallas	466	24	80.6	0.0	102	2	56	13	35	2.24	− 1.91	0.61	0	6	12	0	18	s.	G. A. Eisenlohr.
Danevang	Wharton	145	17	81.3	− 0.8	100	1	63	2	36	0.83	− 3.50	0.40	0	3	19	5	6	se.	H. P. Hermansen.
Del Rio	Valverde	952	7	79.4	− 2.7	98	2	65	8	24	5.44	+ 2.33	2.75	0	10	3	20	7	se.	U. S. Weather Bureau.
Denton	Denton	621	.....	79.6	.....	102	1†	54	12	35	1.76	.....	0.55	0	11	11	12	7	s.	T. W. Buell.
Devine	Medina	653	3	81.2	.....	99	2	65	9†	31	7.05	.....	1.70	0	11	14	9	7	se.	M. A. Keller.
Dialville	Cherokee	575	10	77.8	− 1.1	94	2†	56	12	29	3.36	− 0.20	1.05	0	6	16	9	5	s.	J. M. B. McKnight.
Dilley	Frio	569	3	.....	.....	.....	.....	.....	.....	.....	4.90	.....	1.60	0	7	.....	.....	.....	.....	John W. Miller.
Dublin	Erath	1,466	17	78.8	− 0.8	103	1†	59	12	36	4.05	+ 1.27	1.21	0	11	9	12	9	s.	Jno. O. Shafer.
Duval	Travis	420	24	78.9	− 3.0	95	2	62	12†	28	0.94	− 2.22	0.55	0	7	13	3	14	se.	J. C. Edgar.
Eagle Pass	Maverick	800	36	81.8	− 3.3	102	2	65	9†	30	13.06	+10.62	7.21	0	12	2	23	5	se.	Charles Tarver.
Eastland	Eastland	1,420	6	75.4	.....	99	3	58	13	37	5.66	.....	1.10	0	9	8	17	5	s.	James A. Beard.
Edna	Jackson	71	4	.....	.....	.....	.....	.....	.....	.....	2.79	.....	1.45	0	4	.....	.....	.....	.....	E. L. Faires.
El Paso	El Paso	3,762	34	76.8	− 2.8	96	26	55	8	32	0.91	+ 0.36	0.37	0	9	19	10	1	se.	U. S. Weather Bureau.
Encinal	La Salle	558	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Walter Pettit.
Falfurrias	Brooks	.....	5	80.7	.....	101	1	66	1	35	4.81	.....	1.11	0	9	11	16	3	se.	W. A. Gardner.
Flatonia	Fayette	465	5	80.1	.....	99	1	62	15	32	2.01	.....	0.83	0	6	13	5	12	s.	Fred W. Laux.
Flint	Smith	483	3	78.4	.....	98	2	53	14	36	1.45	.....	0.38	0	8	15	6	9	se.	F. C. C. Carter.
Fort Clark	Kinney	1,050	42	77.0	− 5.3	94	1	58	19	30	3.60	+ 0.78	1.00	0	5	16	5	9	se.	Post Hospital.
Fort Davis	Jeff Davis	5,000	34	.....	.....	.....	.....	.....	.....	.....	3.61	+ 1.66	1.42	0	8	.....	.....	.....	.....	C. H. Bird.
Fort McIntosh	Webb	460	45	84.2	− 1.2	102	1	67	11	31	7.76	+ 5.66	4.75	0	10	6	14	10	e.	Post Hospital.
Fort Stockton	Pecos	3,050	16	77.5	− 2.5	104	4	57	8	39	2.90	+ 1.00	1.10	0	7	0	30	0	s.	H. H. Butz.
Fort Worth	Tarrant	670	18	79.4	− 0.7	100	3	59	12	27	3.03	+ 0.06	0.97	0	8	5	16	9	s.	U. S. Weather Bureau.
Fowlerton	La Salle	.....	.....	82.4[f]	.....	99	27	65	17	26	7.83	.....	4.58	0	9	.....	.....	.....	.....	Leo S. Karren.
Fredericksburg	Gillespie	1,742	24	75.8	− 3.0	97	1	60	15	30	4.51	+ 2.21	2.37	0	12	6	15	9	s.	Arthur Striegler.
Gail	Borden	.....	1	76.5	.....	97	27	58	8†	34	6.65	.....	5.00	0	5	12	0	18	s.	J. D. Brown.
Gainesville	Cooke	738	23	79.2	+ 0.8	102	2	56	12	36	2.47	− 1.16	0.78	0	7	.....	.....	.....	.....	J. L. Hickson.
Galveston	Galveston	69	42	78.5	− 2.4	91	19	68	12	15	2.51	− 2.24	0.94	0	5	15	10	5	s.	U. S. Weather Bureau.
Garden City	Glasscock	.....	1	.....	.....	.....	.....	.....	.....	.....	4.71	.....	2.30	0	8	15	5	10	se.	C. W. Cunningham.
Gatesville	Coryell	795	9	79.0	.....	98	2	59	15	31	2.15	.....	0.65	0	8	17	5	8	.....	John Ryan.
Georgetown	Williamson	750	18	79.2	− 2.1	97	1	55	15	39	1.07	− 1.46	0.60	0	9	16	10	4	s.	Prof. R. F. Young.
Goliad	Goliad	164	1	.....	.....	.....	.....	.....	.....	.....	4.21	.....	1.42	0	9	.....	.....	.....	.....	W. B. Campbell.
Gonzales	Gonzales	299	8	.....	.....	.....	.....	.....	.....	.....	2.67	.....	1.45	0	6	7	9	14	s.	J. M. Johnson.
Goree	Knox	.....	1	.....	.....	.....	.....	.....	.....	.....	4.18	.....	0.90	0	10	5	17	8	s.	R. L. Gaines.
Gorham	McLennan	444	4	.....	.....	.....	.....	.....	.....	.....	2.62	.....	1.07	0	4	16	12	2	s.	John Gorham.
Graham	Young	1,040	14	78.4	− 2.1	100	1†	60	1†	40	3.49	− 0.50	1.65	0	8	12	10	8	s.	C. W. Johnson.
Grand Falls	Ward	.....	3	.....	.....	.....	.....	.....	.....	.....	1.54	.....	0.70	0	4	1	25	4	.....	W. A. White.
Grand Saline	Van Zandt	399	3	.....	.....	.....	.....	.....	.....	.....	1.53	.....	0.65	0	5	13	13	4	se.	Jas. Kirk.
Grapevine	Tarrant	670	23	80.6[e]	+ 0.7	102	3	56	12	29	2.13	− 0.85	1.33	0	4	7[e]	10[e]	8[e]	s.	W. J. Crowley.
Greenville	Hunt	550	13	79.7	− 0.9	102	2	58	12	33	3.05	− 0.37	1.35	0	5	14	0	16	s.	Mrs. L. A. Regan.
Hallettville	Lavaca	235	21	81.6	− 0.5	97	2†	65	3†	30	0.87	− 2.24	0.32	0	3	13	6	11	s.	Dr. J. E. Lay.
Hamlin	Jones	1,685	2	.....	.....	.....	.....	.....	.....	.....	1.69	.....	1.20	0	3	.....	.....	.....	.....	W. S. Carruthers.
Harlingen	Cameron	37	2	80.4	.....	97	1†	66	10	29	5.41	.....	1.91	0	11	7	16	7	se.	Lindsay Waters.
Harper	Gillespie	.....	2	.....	.....	.....	.....	.....	.....	.....	8.16	.....	4.33	0	12	11	0	19	s.	D. C. Barker.
Haskell	Haskell	1,553	18	77.2	− 4.2	97	1	59	9†	31	1.54	− 1.57	0.48	0	7	6	11	13	s.	P. D. Sanders.
Hebbronville	Duval	.....	6	.....	.....	.....	.....	.....	.....	.....	8.58	.....	3.70	0	8	.....	.....	.....	.....	Henry Edds.
Hempstead	Waller	254	9	.....	.....	.....	.....	.....	.....	.....	2.50	.....	1.50	0	2	5	0	25	.....	J. H. Hancock.

TABLE 1.—*Climatological data for June, 1913. District No. 8*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Texas—Continued.																				
Henderson	Rusk	500	4	.....	.....	.....	.....	.....	.....	.....	3.21	.....	1.92	0	6	17	5	8	.....	M. Kangerga.
Hewitt	McLennan	664	18	.....	.....	.....	.....	.....	.....	.....	2.00	− 2.24	1.06	0	6	.....	.....	.....	.....	I. H. Earle.
Hico	Hamilton	.....	2	.....	.....	.....	.....	.....	.....	.....	1.86	.....	0.82	0	5	19	2	9	s.	John A. Eakins.
Hillsboro	Hill	628	10	76.6	.....	100	1†	51	9	40	1.42	− 1.31	0.52	0	5	.....	.....	.....	.....	Thompson & Campbell.
Hondo	Medina	901	14	78.8	− 4.3	96	2	65	3†	29	3.52	+ 1.54	0.65	0	9	13	9	8	se.	H. E. Haass.
Houston	Harris	138	23	78.9	− 2.2	94	1	64	12	24	2.63	− 2.35	1.97	0	9	8	14	8	se.	U. S. Weather Bureau.
Huntsville	Walker	400	29	78.7	− 2.2	95	20	59	12	28	2.00	− 2.15	1.48	0	4	17	0	13	se.	W. Y. Barr.
Jayton	Kent	.....	3	.....	.....	.....	.....	.....	.....	.....	3.95	.....	1.40	0	5	18	0	12	s.	Wichita Valley Ry. Co.
Jewett	Leon	496	9	81.9	.....	101	12	62	18	37	2.30	.....	2.20	0	2	20	2	8	s.	Earle Adkisson.
Junction	Kimble	1,645	12	74.4	.....	96	1	54	7	40	5.15	+ 2.05	2.25	0	5	.....	.....	.....	.....	Judge John S. Durst.
Kaufman	Kaufman	448	14	81.6	+ 0.2	101	2	58	12	30	1.11	− 2.60	0.50	0	4	16	11	3	se.	B. J. Hubbard.
Kerrville	Kerr	1,650	17	76.5	− 1.7	98	22	60	3†	32	5.34	+ 1.30	2.02	0	10	6	16	8	s.	Robert E. Horne.
Knickerbocker	Tom Green	2,050	9	77.0	.....	98	2†	60	12†	35	3.72	.....	1.70	0	9	10	15	5	se.	Jos. Tweedy.
Kopperl	Bosque	576	16	.....	.....	.....	.....	.....	.....	.....	3.59	+ 0.94	1.50	0	6	7	7	16	s.	T. A. Johnson.
Lagrange	Fayette	276	3	.....	.....	.....	.....	.....	.....	.....	1.86	.....	0.74	0	8	11	7	12	se.	August Hermes.
Lamesa	Dawson	2,500	3	.....	.....	.....	.....	.....	.....	.....	10.30	.....	5.72	0	9	.....	.....	.....	.....	S. D. Austin.
Lampasas	Lampasas	1,026	21	78.2	− 1.5	98	1†	56	15	35	2.76	− 0.79	0.88	0	7	14	2	14	.....	Mrs. K. I. Webber.
La Parra	Willacy	38	10	.....	.....	.....	.....	.....	.....	.....	6.27	+ 4.58	2.40	0	12	.....	.....	.....	.....	Jno. G. Kenedy.
Laredo	Webb	421	.....	.....	.....	.....	.....	.....	.....	.....	5.18	.....	1.30	0	12	8	17	5	se.	Mrs. A. H. Jackson.
Laureles Ranch	Nueces	20	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Matt Cody.
Liberty	Liberty	38	9	78.2	.....	95	1	60	13†	30	2.39	.....	0.81	0	5	14	10	6	ne.	Mrs. Fannie Sneed.
Llano	Llano	1,040	22	78.9	− 2.7	98	2	63	15	26	5.05	− 3.04	1.14	0	9	8	16	6	se.	E. W. Torrence.
Llano Grande	Hidalgo	86	5	78.5	.....	97	6	62	9†	34	4.52	.....	1.45	0	11	8	21	1	se.	M. D. Wardlow.
Long Lake	Anderson	229	8	.....	.....	.....	.....	.....	.....	.....	2.79	.....	1.38	0	4	7	9	14	s.	Geo. W. Ellis.
Longview	Gregg	336	27	80.5	− 0.6	101	20	58	12†	35	2.89	+ 0.34	1.10	0	7	21	2	7	se.	C. A. Propst.
Lubbock	Lubbock	.....	2	.....	.....	.....	.....	.....	.....	.....	5.88	.....	2.78	0	15	10	8	12	se.	V. L. Cory.
Lufkin	Angelina	325	6	78.5	.....	97	25†	55	13	34	2.90	.....	0.60	0	7	17	5	8	s.	T. A. King.
Luling	Caldwell	418	24	80.4	− 1.6	97	1†	64	12†	28	2.67	− 0.10	0.82	0	11	11	8	11	s.	John Carter.
McGregor	McLennan	713	3	.....	.....	.....	.....	.....	.....	.....	1.80	.....	0.80	0	3	21	6	3	s.	W. H. Whitley.
McKinney	Collin	612	11	78.8	.....	101	2	53	12	35	3.00	− 0.28	1.18	0	6	10	13	7	se.	H. Killingsworth.
Marathon	Brewster	4,043	3	68.5	.....	88	6	50	4	31	4.00	.....	2.50	0	5	9	9	12	s.	Rev. A. P. Willis.
Marble Falls	Burnet	771	5	.....	.....	.....	.....	.....	.....	.....	7.20	.....	2.50	0	9	9	0	21	s.	B. E. Cochran.
Marfa	Presidio	.....	5	.....	.....	.....	.....	.....	.....	.....	3.90	.....	1.80	0	7	.....	.....	.....	.....	W. L. Jones.
Marshall	Harrison	375	11	78.2	.....	97	20	51	14	38	2.03	− 0.58	0.62	0	7	3	24	3	s.	Lee Scott.
Matagorda	Matagorda	12	3	.....	.....	.....	.....	.....	.....	.....	2.78	.....	1.24	0	8	16	4	10	s.	W. E. McNabb.
Mexia	Limestone	537	9	80.2	.....	98	2	57	12	32	1.51	.....	0.81	0	4	2	21	7	s.	Miss Josephine Newman.
Midland	Midland	.....	10	74.8[1]	.....	96	1†	55	8	38[1]	3.81	+ 2.41	3.00	0	4	0[1]	13[1]	5[1]	se.	A. G. Graham.
Mission	Hidalgo	140	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Myron J. Conway.
Mont Belvieu	Chambers	65	3	.....	.....	.....	.....	.....	.....	.....	2.01	.....	0.97	0	7	12	12	6	se.	A. R. Shearer.
Montell	Uvalde	.....	1	.....	.....	.....	.....	.....	.....	.....	22.93	.....	20.60	0	12	1	11	18	se.	A. G. Beecroft.
Mount Blanco	Crosby	2,750	24	73.6	− 2.1	96	2	53	9†	35	8.79	+ 5.60	5.78	0	5	10	9	11	s.	Geo. W. Smith.
Nacogdoches	Nacogdoches	271	14	76.6	− 2.2	95	20	54	13†	33	1.61	− 3.43	0.72	0	4	20	4	6	s.	Miss Mary Hofmann.
New Braunfels	Comal	720	24	78.4	− 2.3	93	2	64	13†	26	5.64	+ 2.95	1.32	0	8	0	25	5	s.	J. Giesecke.
Palestine	Anderson	510	31	77.4	− 1.0	93	2	56	12	27	1.51	− 2.49	0.80	0	7	17	11	2	s.	U. S. Weather Bureau.
Panter	Hood	1,000	24	.....	.....	.....	.....	.....	.....	.....	3.45	+ 0.72	1.62	0	7	.....	.....	.....	.....	E. H. Snyder.
Pearsall	Frio	629	3	.....	.....	.....	.....	.....	.....	.....	7.81	.....	2.71	0	10	.....	.....	.....	.....	Earnest De Vilbiss.
Pierce	Wharton	102	7	79.7	.....	96	1†	64	3†	30	1.10	.....	0.40	0	6	9	0	21	s.	R. B. Pointer.
Plainview	Hale	3,370	17	71.7	− 2.9	96	1†	53	9†	37	4.39	+ 0.62	1.28	0	12	7	14	9	se.	J. F. Sander.
Port Lavaca	Calhoun	20	12	80.0	− 1.6	96	1	67	7	27	2.51	− 1.76	1.55	0	5	15	3	12	s.	J. H. Bickford.
Post	Garza	2,700	3	.....	.....	.....	.....	.....	.....	.....	8.22	.....	3.90	0	14	5	13	12	se.	W. T. Mann.
Putnam	Callahan	1,591	2	.....	.....	.....	.....	.....	.....	.....	3.73	.....	1.90	0	4	15	0	15	se.	S. M. Davis.
Raymondville	Cameron	.....	2	79.4	.....	96	1	66	2	28	6.52	.....	2.55	0	15	9	18	3	se.	C. H. Pease.
Ricardo	Nueces	57	4	79.1	.....	99	8	64	3	30	9.47	.....	3.15	0	10	12	2	16	se.	J. S. Lehman.
Rio Grande	Starr	.....	36	.....	.....	.....	.....	.....	.....	.....	2.90	+ 1.52	1.60	0	5	11	3	16	se.	D. N. Garza.
Riverside	Walker	169	9	.....	.....	.....	.....	.....	.....	.....	0.50	.....	0.30	0	2	21	2	7	s.	Mrs. C. W. Higdon.
Rockland	Tyler	136	9	.....	.....	.....	.....	.....	.....	.....	3.20	.....	1.80	0	4	11	9	10	s.	Mack Dunkin.
Rockport	Aransas	12	12	78.7	− 2.6	86	1†	72	8†	10	6.65	+ 4.17	3.50	0	8	20	5	5	se.	Mrs. G. B. Grewe.
Rossville	Atascosa	558	6	77.4	.....	93	3	59	5†	32	8.25	.....	2.56	0	14	6	15	9	se.	W. F. M. Ross.
Runge	Karnes	308	18	.....	.....	.....	.....	.....	.....	.....	2.83	− 0.30	1.27	0	5	.....	.....	.....	.....	Reiffert & Frobese.
Sabinal	Uvalde	964	9	79.4	.....	98	2	65	3†	31	5.07	.....	1.22	0	15	2	26	2	se.	H. W. Reily.
Salado	Bell	.....	3	.....	.....	.....	.....	.....	.....	.....	2.56	.....	0.78	0	6	12	5	13	s.	L. M. Crockett.
San Angelo	Tom Green	1,847	22	77.0	− 4.0	98	1†	60	13	32	4.60	+ 1.97	2.70	0	2	9	13	8	s.	Sam Crowther.
San Antonio	Bexar	701	28	79.2	− 1.2	95	1	64	13	26	2.90	− 0.21	0.78	0	12	13	10	7	se.	U. S. Weather Bureau.
San Augustine	San Augustine	360	4	77.2	.....	97	2	53	13	35	3.03	.....	0.88	0	8	12	9	9	.....	F. A. Wilson.
San Juanito	Hidalgo	.....	4	82.6	.....	100	1	61	10	31	5.90	.....	1.35	0	15	0	0	30	se.	J. B. McAllen.
San Marcos	Hays	588	20	78.5[1]	− 2.7	93	2†	60	18	31	2.13	− 1.05	0.73	0	4	2	0	28	s.	Miss L. C. Ford.
San Saba	San Saba	1,712	12	77.4	− 3.3	99	2	58	15	33	2.86	+ 0.27	1.20	0	9	16	13	1	s.	Jas. Burns.
Santa Anna	Coleman	1,744	.....	.....	.....	.....	.....	.....	.....	.....	5.63	.....	3.35	0	5	3	8	19	s.	L. L. Shield.
Santa Gertrudes	Nueces	.....	13	.....	.....	.....	.....	.....	.....	.....	8.14	+ 5.38	2.00	0	11	.....	.....	.....	.....	J. B. Wright, jr.
Sealy	Austin	201	2	.....	.....	.....	.....	.....	.....	.....	2.32	.....	1.38	0	5	10	9	11	e.	O. H. Albert.
Seymour	Baylor	1,320	7	77.6[1]	.....	97	29	50	7	30	3.93	.....	1.04	0	7	7[1]	7[1]	10[1]	se.	T. J. North.
Snyder	Scurry	.....	2	74.7	.....	95	1†	55	9	31	2.44	.....	0.75	0	7	11	8	11	se.	J. Allen Weaver.
Somerville	Burleson	251	4	79.9	.....	98	1†	60	12†	30	2.25	.....	0.95	0	3	19	3	8	s.	Ed. Herbst.
Sonora	Sutton	2,200	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. R. Myers.
Spur	Dickens	2,300	2	75.6	.....	99	1	54	9	33	4.35	.....	2.60	0	9	10	8	12	se.	J. D. Reagan.
Stamford	Jones	.....	2	76.4	.....	97	1	60	8	29	1.02	.....	0.56	0	4	8	16	6	.....	W. I. Pratt.
Sugarland	Fort Bend	79	12	79.0	− 2.0	95	1	64	3†	28	2.55	− 1.74	1.40	0	4	21	6	3	e.	Paul C. Rudat.
Sutherland Springs	Wilson	424	3	.....	.....	.....	.....	.....	.....	.....	2.30	.....	0.75	0	4	.....	.....	.....	.....	W. W. Craft.
Tahoka	Lynn	.....	.....	73.2	.....	97	6	56	9	33	10.93	.....	5.12	0	11	0	22	8	se.	H. C. Crie.
Taylor	Williamson	583	12	78.8	− 1.2	96	20	60	15	29	1.49	− 2.03	0.83	0	8	7	16	7	s.	U. S. Weather Bureau.
Temple	Bell	630	23	79.6	− 0.3	98	2	61	12†	28	1.78	− 1.61	0.50	0	6	18	2	10	.....	W. Goodrich Jones.
Theodore (near)	Winkler	.....	3	.....	.....	.....	.....	.....	.....	.....	1.78	.....	0.90	0	4	.....	.....	.....	.....	M. M. Leeman.
Thurber	Erath	.....	3	.....	.....	.....	.....	.....	.....	.....	2.15	.....	0.94	0	9	.....	.....	.....	.....	T. K. Ball.
Tivoli	Refugio	.....	3	.....	.....	.....	.....	.....	.....	.....	3.89	.....	1.40	0	5	.....	.....	.....	.....	W. H. Gisler.
Uvalde	Uvalde	.....	12	79.4	.....	100	2	63	20	32	12.78	+10.24	8.50	0	10	15	5	10	se.	J. G. McBride.
Valentine	Jeff Davis	4,421	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Valentine Development Co.
Valley Junction	Robertson	289	13	.....	.....	.....	.....	.....	.....	.....	1.98	− 0.74	1.57	0	3	16	8	6	s.	Frank Fitzpatrick.
Victoria	Victoria	187	14	81.0	− 0.6	100	1	67	8†	31	3.23	− 0.21	1.55	0	4	16	1	13	e.	C. C. Zirjacks.
Waco	McLennan	424	24	82.3	− 0.2	100	2	63	13	29	1.16	− 2.20	0.44	0	4	9	11	10	s.	E. H. Hall.
Waxahachie	Ellis	556	16	80.6	− 0.5	103	2	57	12†	37	3.29	− 0.62	1.33	0	7	4[a]	16[a]	9[a]	s.	C. D. Longserre.
Weatherford	Parker	864	24	79.8	+ 0.4	100	1	59	10†	28	3.67	− 0.26	1.28	0	8	16	4	10	n.	Miss J. Stickfort.
Wills Point	Van Zandt	524	8	80.2	.....	100	22	56	12	34	1.65	.....	1.05	0	3	11	13	6	ne.	W. W. Gibbard.
Winters	Runnels	.....	2	.....	.....	.....	.....	.....	.....	.....	2.12	.....	1.42	0	4	.....	.....	.....	.....	Ed. P. Eason.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for June, 1913. District No. 8, Texas and Rio Grande Valley.*

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Colorado.																																
Blanca	Rio Grande			.14			.04		.15	.20	.63	1.18	.02					.09		.13			.06	.02					.20			2.86
Cumbres	do			T.		T.			.02	.48	.06			.02	.03		.02	T.	.03	.01	.03		.50	T.					.08			1.28
Garnett	do								.17	.32	.39								.08	.08		.06	.09						1.04			2.23
Hermit	do				.17		T.	.25	.07	.21	1.52	.51	.49				.07		.25		T.	.05	T.	.03	T.				.16			3.78
La Veta Pass	do	.30		.12		T.		.06	.10	.80	.12		T.			.10	T.		.06	T.	T.	.16	.08			T.			.16			2.06
Manassa	do			T.	T.		T.	T.			.70	.45	T.						T.			T.		.08					T.			1.23
Platoro	do					.08			.45	.21	.38	.37	.32					.11	.48	.03		.03	.03	.05					.28	.26		3.08
Saguache	do					T.	T.	T.	T.	.87	.20	.67	.21					T.	T.				.35	T.	T.					.10		2.40
San Luis	do	.01		T.			T.	T.	T.	.01	.68	1.05	.08						T.	.09	T.	T.		T.					T.			1.92
Wagon Wheel Gap Experiment Sta.	do	T.			T.	T.	T.	.55	.23	.35	.67		.40				.01	.22	.12	.01				.14				.09	.19			2.98
New Mexico.																																
Agricultural College	Rio Grande		.01					.77	.01	.36						.55			.15	.06		.18		.54								2.63
Alamogordo (near)	do											.43								.71	.38		.03		.11							1.66
Alamogordo	do							.29		T.	T.	.43							.26	T.	T.		T.		.07							1.05
Alamos Ranch	do							.15	.63	.20	2.51	1.36							.32	.10		.02	.11	.12	.05							5.57
Albuquerque	do							.13	T.	.01								.03	T.	T.	.02	.72		T.					.08			0.99
Ancho	do							.15	.45		.05											T.	.03					.50		.55		1.73
Anchor Mine	do	.20					.10		.40	.15	.85	.80	.20					.15	.12				.25					.25	.15			3.62
Artesia	Pecos								.95	.06	.07	.32						T.	.26			.18		T.								1.84
Aspen Grove Ranch	Rio Grande							.31	.21	.32	1.21	.14							.15				.29									2.63
Bateman's Ranch	do					T.	T.		.40		1.43	.37	.22					T.	.60	T.		T.	T.	.15					T.			3.17
Berino	do																															
Bluewater	do						T.			.03									T.		T.		.15									0.18
Boaz	Pecos	.11		.06	.37				.48	.15		.11	.68					.93	.24		.40	.22	.25								.03	4.03
Capitan	do		.05						.10		.75								.10		.62							.31				1.93
Carlsbad	do	T.			.44				.69	.19	.07	.28	.09					.52	1.06	.15		.26	.18									3.93
Carrizozo	Rio Grande							.08	.05	.05	.02	.04				.10				.06	.26			.04				.89	.03	.35		1.97
Cerrillos (near)	do	T.		T.	.18		T.	T.	.90	T.	.12	.67				T.	T.	1.06		T.	T.	.02	.13	T.				.20	.92	.05		3.25
Chama	do				T.				T.	.22	.40	.50						T.	.30		T.	T.	.20						.25			1.87
Cloudcroft	Pecos																	.15		.25	.15	.10						.10				0.75
Corona	do																															
Coyote	Rio Grande			T.				.18	.29											.12	.02		.42					.16		.60		1.79
Cundiyo	do							.18	.22			.60							.18				.37	.10					.03	.20		1.88
Demonstration Farm	Pecos	.12		.35	.28				.90	.38	.65	.25	.94			.08	.19		.31	.42		.38						.09	.42			5.76
Duran	do		T.	T.	.75			.65	.95		.15	.35	.05		T.					.25	1.00	.10	.20	.01						.08	.15	4.69
Elida	do			1.30				1.90		.45		1.98						.27	.47	1.06	.49											7.92
Escondido	Rio Grande							.11	.09	.20	.06									.28	.05											0.79
Espanola	do								.50		.42	.48											.12		.06							1.58
Estancia	do							T.	.15	.10	.19					T.	.22	.05	T.									.08	.28			1.07
Fort Stanton	Pecos	.06	T.	T.	T.			.08	.17	.02	.18	.13	.30						.02	.02	1.11	.05	.11	.10	T.			.18		.28			2.81
Fort Sumner	do			*	.10		.05	*	.35	.44	.05	.08	.15					.09	.11	1.84	.85	.07	T.	.01						.67	.01		4.87
Gallinas	do							.35	.10		.11	T.							.11	.28	.10		.07					.15	.12	.25			1.64
Gallinas Planting Station.	do	.01		.01	.09	T.		.20	.38	.17	2.78	1.85	.39				.11	T.	.07	.02	.60	T.	T.	0.1				.04	.47	.45			7.65
Glorieta Ranch	Rio Grande							.06	.02	.12	.10								.03			.03	.13	.05								0.54
Harvey's Upper Ranch.	Pecos	.28		.03	.33			1.21	.36	.34	2.10	2.05	.13			T.	.35	.20	.40		.18	.16	.35					.13	.65	.65			9.90
Hobbs	do		.10		.75			T.	.10	.35	.03	.32	T.		.07			.37	.95	T.	.08	T.								.16			3.28
Hondo Reservoir	do					.14		1.20	.55	.60	.13	.39	.07						.06		.46	T.		T.								.32	3.92
Jemez Springs	Rio Grande							*	.85		.80	.57						.20	.40	.15		.60							.20				3.77
Knowles (near)	Pecos	.40			.55			.03	.02	.13	.01	.15						.11	.30	.07	.10	.18		T.						T.			2.05
Laguna	Rio Grande		T.							1.35							T.	T.															1.35
Lagunita	Pecos																															
Lake Valley	Rio Grande		T.					T.	.05								T.	.25	.08	T.	.03	.04	.52					T.				0.97
Lakewood (near)	Pecos								.62	.05	.10	.25								.35	.02												1.39
Lanark	Rio Grande							.10		.02									.08	.05				.34					.12				0.71
Las Vegas	Pecos			.20	.65			.06	.67	.94	.18	.49				.12	.02		.35	.02	.17								.78				4.65
Los Lunas (near)	Rio Grande								.15									.29	.05	.08		2.00											2.57
Magdalena	do			T.			T.	.05	.32	T.								.50	.20	T.	.05	.05	.35	T.					.30				1.82
Mescalero	do	T.		.19				.09	.42	.39	.41	.13	.01			.02		.03	.05	.50	1.48	.42	.18	.02	T.			.68	.07	.03			5.12
Mineral Hill	Pecos			.25						.55	.22	2.33					.12		.43	.05			.42						1.20				5.57
Monterey	Rio Grande							T.														T.	T.										T.
Mountainair	do			T.			T.	.41	.10	.02	.09	T.				T.		T.	.09	T.		T.			.08			T.				0.79
Mountain Park	do								.19	.12	.40	.36					.10			.02	.20	.17	.38	.01	.03							.42	2.40
Newman	do										.50	.15						.86	.60	.63	.20												2.94
Nogal (near)	Pecos	T.	.04		T.		.01	.38	.30	.02	.40	.14			T.			.84	.51	.18	.04	.08	.29					T.	1.13	.07			4.44
Noria	Rio Grande							.06												.36		1.29	.41	.66					T.				2.78
Orogrande	do	T.						.12	.48	.36	.15	T.							.12	.50		T.						T.		.08			1.81
Oscura	do							.35	.10		.03						.01			.04			.08	.12					.08	.02			0.83
Otis	Pecos	T.			.18				.70		.10	.39	.05					.72	1.09	.54		.39		T.										4.16
Pastura	do							1.64	.18	.05	.04	.24	.02			T.			1.00										T.	.72			3.89
Placitas (near)	Rio Grande																															
Plainview (near)	Pecos																															
Red River Canyon	Rio Grande				T.	T.	T.	.60	.90	1.00	*	.80						.10	.10		.30	.60	T.	T.										4.40
Richland	Pecos				.65											.31				.43			1.18										2.57
Rincon	Rio Grande									.22									.21	T.		.32		.75									1.50
Rio Grande Dam	do		T.					T.											.54			.01	.31	.02									0.86
Rio Grande Industrial School.	do							.05	T.	T.		.42					T.	.08	T.			.13	.69	T.					.08				1.45
Rosedale	do			.06				.03	.22		T.							.15	.40	.12			.16	T.					.13				1.27
Roswell	Pecos			.10	.66			.93	.28	.11	.02	1.00							.15	.06	T.	.23		.63									4.17
San Marcial	Rio Grande								.56											.12	.11	.13	.12										1.04
San Rafael	do								T.									.03	T.		T.	T.	1.15										1.18
Santa Fe	do			T.			T.	.61	.35	T.	.18	.69				T.	.16		.47	T.		T.	.15	.27				.14	1.24				4.26
Santa Fe Canyon	do	T.		.03	.10	T.		T.	1.10	T.	1.33	1.31	.07				T.		.38			T.	.09	.21				.51	1.07				6.20
Santa Rosa	Pecos	.12			.01			.04	.57	.48	.03	.07	.12			.03				.06	.70	.06	.10								.29			2.68
Senorito (near)	Rio Grande							.90	.20	*	1.12	.83						.83	.60	.08	.63	.20		.35	.07					T.				5.81
Socorro	do									.67										.06			.05	.52	.12				.12					1.54
South Fork	do							.10	.30	.60	.10	.14								.20	.12									16	.12			1.84
Stanley	do				.15			.44	.54	1.50	.50						.16													70				3.99
Tajique (near)	do							.15	.09	.41	.05						.14		.25	T.	.03	.83	.04	.11						37				2.47
Taos	do							.16	.14	.20	.04	.50					T.	T.				.01	.14	.10							.13				1.52
Taos Canyon	do			.27	T.			.28	.11	T.	.10	.73					.01		.05	.04		.03	.24	.04	.11				.18	.22	.12			2.53
Tecolote	do							.40	.10	T.	.05	T.								.35	.15	.15		.22					.35		.22			1.99
Three Rivers	do									T.		.05						.05		.10	.23			.17										0.60
Tijeras Canyon	do							.03	.22	.18	.02	.74				.03			.22	.18	.02		.07						T	.05				1.76
Torrance	Pecos																															

TABLE 2.—*Daily precipitation for June, 1913. District No. 8*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
New Mexico—Contd.																																
Tres Piedras	Rio Grande				.01	.09		.05	.04	.22	.72	.92	.12				.28		.11	.03				.03								2.62
Truchas	do							.05	.40	.05	.06	.70					.01	.16	.04	T.	.06	.17	.04	.05	T.			.01	.02	.21		2.03
Tularosa	do																															
Vaughn	Pecos							*	2.00		.10	.60																		.30		3.00
Virsylvia	Rio Grande	.03						.08		.20	1.06	.01					.01		.05		.02	.01										1.47
Willard	do							.06	.10	.20	.12						T.		.03													0.51
Winsors	Pecos	.05		.12	.05	.01	.03	.18	.15	.07	.45	1.85	.10					.12	.58	.03		.23	.08	.05				.02	.37	.85		5.35
Texas.																																
Abilene	Brazos		T.					.18	.66	.03	T.							.04	.75	T.				.08					.25	T.	T.	1.99
Albany	do		T.		T.	T.			1.30		.35	.05					T.	T.	1.46								T.	T.	.58	.04	3.78
Alice	Coast									.05	.15	.10	.02				.10	4.00	.75	.50					.05		.08	2.30	.20	.35	8.65
Alpine	Pecos				.45		.05		.32						.10				.25		.35			.90		.70					3.12
Alvin	Coast																	.95				T.					.08	.04	.07	.77		1.91
Anahuac	do															.24		.57									.08	.20	.40	.20		1.69
Antelope	Trinity					T.	.08	T.	.06	.84							.12	.71	.69					T.					.76	.26		3.55
Aspermont	Brazos		.51					1.60	1.35	.34								.37	.12			.05									1.07	5.41
Austin	Colorado						T.			.03	T.	.08				.08	.01	.04	.02				.13	T.	.02			.33	.80	.29		1.83
Ballinger	do					T.			.63	T.		.15							.07	.18				.55	T.					.30	.15	2.03
Barstow	Pecos												.85									.11				.50						1.46
Bay City	Colorado										.02	T.						T.	.51	.06					.07			.51	.08	.11		1.34
Beaumont	Neches							T.			1.34					T.		.06	.91									.15	.18	.08		3.64
Beeville	Coast									.16	.97	.49			T.	.25	.12	.25	1.60	.03								T.	.65	.08	.10	5.28
Big Spring	Colorado	T.	.03	T.	.21			.03	.01										.21			.01	.50	.01					.01	1.18	.02	3.28
Blanco	Guadalupe						T.			T.	.34	.60						.14	1.72	1.02						1.38			.07	.64	.26	7.17
Boerne	San Antonio					T.			.06	.77	.72						.55	1.36	.43				T.	T.	.68	.06		.58	.23	.54	.07	6.05
Booth	Brazos										.06							.13	1.83									.20	.75	.05		3.02
Bowie	Trinity							.16	.10	.82							.02	.77	.09			.33		.02					.21	.16		2.68
Brady	Colorado																															
Brazoria	Brazos								.01	.40	.02		T.	T.		.04		1.37	.02								1.11	.30	.08		3.35
Brazos	do						.30	.03	.23	.14	.25	.04							.21		.19				.37					1.02	.38	3.16
Brenham	do								T.		.15	.06	T.				T.		.06	T.				T.		.28		T.	1.13	1.03	T.	2.76
Bridgeport	Trinity							.02	.10	.14	.38						T.		.65							T.			.48	.14	.73	2.64
Brighton	Coast									.40		.25		.10		.11		.25					.29					.22	3.48			5.10
Brownsville	Rio Grande								T.	1.10	.48	.30	.04	.08	.10	.02	.40	.58	.14		T.	.03	.04	.02	T.			1.25	.30	.08	T.	4.96
Brownwood	Colorado						T.	T.	.58	.40								T.	.85	1.65									.01	.47	.05	4.01
Buena Vista	Pecos						.45	.15	T.										.31											T.		0.91
Cameron	Brazos																															
Carmona	Neches							.10		.23	.02						.12	.65						T.			.82	.48	.04			2.46
Carrizo Springs	Nueces																															
Claytonville	Brazos				.11			.75	T.	T.	.03	T.				.04	.06	.09				T.							.04	1.01	.21	2.34
Clifton	do								T.	.74							.70	.77	.02									.11	.83	.15	.04	3.36
Coleman	Colorado					T.		T.	.45	T.							.72	.36	3.03					T.					.26	T.	T.	4.85
Collegeport	Coast																															
College Station	Brazos									.22	.04	.01				.02	.04	.01	.07					.07			.02	.58	.44	.01	1.53
Colorado	Colorado							.08	.08										.01			.18							.08	1.71	2.14
Columbus	do										.30		T.				T.		.06					.88				T.	T.	.82		2.06
Comanche	Brazos					T.		.14	.04	1.67	.10	.01					T.	T.	1.85						.01			T.	.23	.04	.36	4.48
Corpus Christi	Coast					T.			.04	.03	.25	.16	.02		T.	T.	.93	.25	.02			.05	.06		.04	T.	.07	.58	1.44	.01		3.95
Corsicana	Trinity									T.	.70							.08	.02	T.						T.			T.	.60		1.40
Cotulla	Nueces			.50			.50										.60	.60	.20									.30	1.80	.20		4.70
Crockett	Trinity									.20	T.						T.	.24		.13								.47	.34	.51		1.89
Cuero	Guadalupe										.14	.02	.01				.32	.04	.62	.02			.03		.01	.14			.56	.54		2.45
Dallas	Trinity				....				.04	.35	.55							T.	.61			T.							.09		.60	2.24
Danevang	Coast									T.								.40										.25	.15			0.83
Del Rio	Rio Grande				.04			.39				.17						1.94	1.42	.03			.39		.25				.79	.02		5.44
Denton	Trinity						.08	.07	.10	.31	.02							.55	.18									.07	.08	.10	.20	1.76
Devine	Nueces					1.20			.25							T.	.50	1.70	.30			T.	.25			.50		.25	1.35	.50	.25	7.05
Dialville	Neches								T.	.29	T.						.40	.96							.04			.62	1.05		3.36
Dilley	Nueces									.50							1.60	.25	.25									1.25	.65	.40	4.90
Dublin	Brazos								.06	.41	.05	.03							1.21	.76				.07		.05		.02	.82	.57	4.05
Duval	Colorado									.02	T.	.09				.01	T.	.58	T.				T.		T.			.06	.10	.08		0.94
Eagle Pass	Rio Grande				T.	.14	.90	T.	.11	1.86		.24	T.					1.10	1.05	.01					7.21				.32	.01	.17	13.06
Eastland	Brazos								.90	.10	.90	.50						.10	.85	1.00					T.					1.10	.15	5.66
Edna	Lavaca									.22						1.45			.12										1.00			2.79
El Paso	Rio Grande	T.					T.	.03		.03	.28					T.			.02	.07		.26	.11	.04				T.	.07			0.91
Encinal	Nueces																															
Falfurrias	Coast								.50	.85	.10	T.		.12		T.	T.	.86	.45			.14	T.	T.				.68	1.17			4.81
Flatonia	Guadalupe									.83		T.				T.		T.	.06						.17	.02		.42	.50		T.	2.01
Flint	Neches								.03	.26		.01						.38	.02						.15			.34	.26	T.		1.45
Fort Clark	Rio Grande						.80											.60		T.			.40	T.	1.00				T.	.80		3.60
Fort Davis	Pecos			.46			.34		.03	.28									.38	.64	.06			1.42								3.61
Fort McIntosh	Rio Grande						.65		4.75		.30	.03						.20	.22	.02				.08					1.30	.20		7.76
Fort Stockton	Pecos						.30	.23											1.10	.30				.47		.22				.28		2.90
Fort Worth	Trinity						T.	.01	.89	.44	.01	T.					T.	.91	.01					T.				.20	T.	.56		3.03
Fowlerton	Nueces								.10	.74	.30						4.58	.25	.84									.15	.73	.10		7.83
Fredericksburg	Colorado					.28			.07	T.		.05					.12	.10	2.37			.27				.11		.10	.53	.33	.12	4.51
Gail	do						.20										1.25	.20												2.00	3.00	6.65
Galnesville	Trinity		.78	.06					.67	.60	.10								.19											.07		2.47
Galveston	Coast									.82	.01	T.	T.				T.		.94					T.			.64	T.	.10			2.51
Garden City	Colorado				.27			.37	.20										.82	.06			.50						T.	2.30	.19	4.71
Gatesville	Brazos									.65	.20	.15							.10	.05								.10	.35	.55		2.15
Georgetown	do						.03				.02	.06	.01							.60						.17			.04	.18	.02	1.07
Goliad	San Antonio									.50	.12					.03	.31	1.42									.05	.18	1.32	.28		4.21
Gonzales	Guadalupe											.12	.13				.08		.14										.78	1.45		2.67
Goree	Brazos			.15	.19	.30			.42	.90	.51	T.						T.	.34		T.	T.	.31						T.	.46	.60	4.18
Gorham	do																.50	.40										.65	1.07	T.		2.62
Graham	do		.93					.08	.08	.10								.25	1.65						T.				.13	.30		3.49
Grand Falls	Pecos	T.		.28			T.	.16		T.		T.										.70		T.	.40			T.		T.		1.54
Grand Saline	Sabine								T.	.51									.10	T.								.12	.65	.13		1.53
Grapevine	Trinity						T.		.47	T.									.32	.01										1.33		2.13
Greenville	Sabine									.55	1.35									.10										.90	.15	3.05
Hallettsville	Lavaca										T.					T.	.29	.26	T.			T.	T.					T.	.32	T.		0.87
Hamlin	Brazos						.08												.41											1.20		1.69
Harlingen	Coast									1.77	.72		.05	.02		.54	.02	.05	.17			.02						.14	1.91	T.		5.41
Harper	Colorado					.30			.28								.20	2.25	4.33						.30	.10	.05	.04	.06	.15	.10	8.16
Haskell	Brazos			.48		.14			.15	.30										.13					.20					.14		1.54
Hebbronville	Coast							.20		2.00				.18			3.70							.80				1.15	.30	.25		8.58
Hempstead	Brazos									1.50										T.									T.	.00	T.	2.50

TABLE 2.—*Daily precipitation for June, 1913. District No. 8*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Texas—Continued.																																
Henderson	Neches								1.92	.50							.05	.07										.32	.35	T.		3.21
Hewitt	Brazos						T.			1.06								.12								.04		.02	.72	.04		2.00
Hico	....do								.10	.73	.01								20										.82			1.86
Hillsboro	....do																.52	.32			.15								.15	.28		1.42
Hondo ‖	Nueces									.22								.35	.65	.35			.20			.35			.50	.60	.30	3.52
Houston	Coast						T.		T.	.12			T.			.02		.26				.15	T.		.02		.05	.01	1.79	.21	T.	2.63
Huntsville ‖	Trinity										.15	T.					.16												1.48	.21	2.00
Jayton	Brazos						.70		1.40													.50							.70	.65	3.95
Jewett ‖	Trinity																	T.											2.20	T.		2.30
Junction	Colorado					1.50			.80	.40									2.25				.20					.09	.50	.20		5.15
Kaufman	Trinity								T.	.32																						1.11
Kerrville ‖	Guadalupe						.08		.06	.40								.40	2.02	1.03				T.		.38	T.		.15	.51	.31	5.34
Knickerbocker	Colorado				.33			T.	.07	.20			T.				.34	.34	.42	.02	T.		T.			T.			.30	1.70	T.	3.72
Kopperl ‖	Brazos									.55	.80	T.						.36	.18											1.50	.20	3.59
Lagrange	Colorado									.06						.42		.10	T.		.08				T.			.20	.23	.74	.03	1.86
Lamesa	....do	T.	T.	.08	.06		1.70	.60	1.76			.04							.12				.22							5.72		10.30
Lampasas ‖	Brazos									.42									.59	.50						.03			.18	.88	.16	2.76
La Parra	Coast								.50	.20	.30	.25			.32	.20	.30	2.40	.55				.25					.30	.70			6.27
Laredo ‖	Rio Grande								.64	.31	.03						.50	.32	.09	1.30			.01	.03		.98	.74	.23				5.18
Laureles Ranch	Coast																															
Liberty ‖	Trinity									.64							T.	.81	T.					T.	T.			.21	.18	.55	T.	2.39
Llano ‖	Colorado						.12		.13	.90	1.14						T.		.96	.92						.12	T.			.71	.05	5.05
Llano Grande ‖	Rio Grande								.20	1.45	.33	.10	T.	.10	.23	.67	T.	.30	.23		T.	.15						.76			T.	4.52
Long Lake ‖	Trinity									.10								.81	T.	T.										1.38	.50	2.79
Longview ‖	Sabine									1.08	.16							1.10	.03			.15							.25		.12	2.89
Lubbock	Brazos	.02		.08	.18	.01		.04	.47	T.	.01	.01						.75	.37	.31				.26	.13					46	2.78	5.88
Lufkin	Neches									.42							.50	.60							.50	.27		.34	.27			2.90
Luling ‖	Guadalupe										.65	.15					.20	.02	.32	.06				.04		.03			.82	.20	.18	2.67
McGregor	Brazos									.80																			.58	.42		1.80
McKinney	Trinity						T.	.19	1.18	.91								.57	.13			T.				T.		.02	T.			3.00
Marathon	Rio Grande				1.00			.20							T.					T.		2.50	.20	.10								4.00
Marble Falls ‖	Colorado						.16			.35	1.35	T.						.22	1.51	2.50	T.					.10			T.	.61	.40	7.20
Marfa	Rio Grande		1.80				.20	*	.20						.80								.50	.30			.10					3.90
Marshall	Sabine								.10	.22								.62	.04									.08	.60		.37	2.03
Matagorda	Coast											.22	1.00	.02				1.24							.02	.10	.14			.04		2.78
Mexia ‖	Brazos										T.							.81	T.	.01									.35	.34	T.	1.51
Midland	Colorado		T.	T.	T.	.05	T.	.02	.74	T.	T.		T.																T.	3.00		3.81
Mission ‖	Rio Grande																															
Mont Belvieu	Coast							.03	T.	.17						.19		.39							T.	.05	.21		.97			2.01
Montell	Nueces					T.		.10	.02									.15	1.47				.17	.14	.12	.02		.04	.55	(a)	.10	22.93
Mount Blanco	Brazos					.41														1.50		1.00							.10		5.78	8.79
Nacogdoches ‖	Neches								T.		.22								15							T.			.72	.52		1.61
New Braunfels	Guadalupe					.10										T.		1.32	1.30				.97		.15			.09	.97	.74	T.	5.64
Palestine	Trinity									.78	.02						.03	.03	T.						T.			.08	.50	.07	T.	1.51
Panter	Brazos								1.62	.44	T.						.10	.37	T.	T.							T.	.20	.15	.57	T.	3.45
Pearsall	Nueces					.14										.36	1.05	.24	.50				T.	T.	1.83			.70	2.71	.24	.04	7.81
Pierce ‖	Colorado										.03						.40		.24									.05	.14	.24		1.10
Plainview	Brazos			.08	.84	.05		.50		T.	T.		.09					.03	1.28	.32		.29	.18	T.						.04	.69	4.39
Port Lavaca	Coast									.18	1.55	T.			T.		T.	.58										.12	.08			2.51
Post	Brazos	.05		.21	.14		.08	1.20	T.	.06	.05							.03	.45			.39	.14						1.50	3.90	.02	8.22
Putnam	....do							1.10	.48										1.90												.25	3.73
Raymondville ‖	Coast									.09	1.08	.41	.07	.07	.16	.10	.06	.02	2.55				.75					.06	.66	.21	.23	6.52
Ricardo	....do								.11		.58			.10	1.29	.55	.15	3.15	.18										2.82		.54	9.47
Rio Grande ‖	Rio Grande										.20				.20		.30	1.60											.60			2.90
Riverside ‖	Trinity										.20								T.											.30		0.50
Rockland ‖	Neches										.50							20											1.80	.70		3.20
Rockport	Coast									.30	.80	.40				.05		3.50	.10						T.			*	1.50			6.65
Rossville	Nueces					.10	.23		.03		.31	.02			.10	1.50	.95			2.56		T.		.10	.20		.63	.52	.65	.35		8.25
Runge	San Antonio								.46									1.27					.08					.40	.62			2.83
Sabinal	Nueces					.10		.08		.58	.40						.37	.33	.52				.24		.14	.21	.12	.16	1.22	.55	.05	5.07
Salado	Brazos									T.	.15							.55			.25							.38	.78	.45		2.56
San Angelo	Colorado							1.90																					T.	2.70		4.60
San Antonio	San Antonio					.02				.05	.16						.06	.32	.26				T.	T.	.15	.02		.35	.59	.78	.14	2.90
San Augustine	Neches								.88	.85	T.						.43	.15			T.							.03	.41	.17	.11	3.03
San Juanito	Coast								.21	1.08	.30	.11	.07	.03		.09		.59	.07			.04	.11					1.31	1.35	.09	.45	5.90
San Marcos ‖	Guadalupe																.50	.73											.60	.30		2.13
San Saba	Colorado					T.			.47	.35							T.	.30	1.20	.02								.04	.22	.23	.03	2.86
Santa Anna	....do								.90								.40	.80	3.35										.18			5.63
Santa Gertrudes ‖	Coast								.23		1.16		.21	.86		.06		.33	1.59						.73		.27		2.00		.70	8.14
Sealy	Brazos										T.	T.				T.		.49					.14			T.		.30	1.38	.01		2.32
Seymour	....do							.95	1.04	.58									.38			.52							.36	.10		3.93
Snyder ‖	Colorado		T.		T.			.75	T.	.21	.65								.01				.35							.21	.26	2.44
Somerville	Brazos									.40							T.	.95											.90	T.		2.25
Sonora	Rio Grande																															
Spur ‖	Brazos		.14		T.	T.		.02	.60	T.	T.	.07							T.	T.		.27		.43	.19					.03	2.60	4.35
Stamford	....do		T.						.16								.04		.26					T.					.56			1.02
Sugarland ‖	....do									1.40						T.	.80										.18	.17				2.55
Sutherland Springs	San Antonio																	.62	.48									.75	.45			2.30
Tahoka	Brazos				.01		T.	1.76	.83	.02	.03		.01					.83	.78	.29										1.25	5.12	10.93
Taylor	....do						T.			.07		.05					.06	T.	.17	.03				T.		T.	T.		.20	.22	.69		1.49
Temple ‖	....do										.25	.05							.38										.30	.30	.50	1.78
Theodore (near)	Pecos	.13					.90						.58										.17									1.78
Thurber	Brazos							.15	.07	.05	.03	.04							.94					.08						.61	.18	2.15
Tivoli	Guadalupe									1.37							1.40	.48					.24								.40	3.89
Uvalde	Nueces					.35		.50	.15								T.	.30	.60					2.20				.06	*	8.50	.12	12.78
Valentine	Rio Grande																															
Valley Junction ‖	Brazos											1.57								20										.21		1.98
Victoria ‖	Guadalupe								.48							.50		1.55											.70			3.23
Waco ‖	Brazos						T.			.30								.20	.22							T.			T.	.44	T.	1.16
Waxahachie ‖	Trinity						T.	T.	T.	1.33	1.25							T.	.12			.07				T.			.38	.13	.01	3.29
Weatherford ‖	....do						T.			.28	.26							.28	1.28	.06					.14					1.17	.20	3.67
Wills Point	Sabine																												.50	1.05	.10		1.65
Winters	Colorado							1.42	.10																					.40	.20		2.12

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.
a 22.05.

TABLE 3.—*Maximum and minimum temperatures at selected stations for June, 1913. District No. 8, Texas and Rio Grande Valley.*

Date.	Colorado.				New Mexico.																Texas.							
	Garnett.		San Luis.		Agricultural College.		Carlsbad.		Fort Stanton.		Mountain-air.		Rosedale.		Roswell.		Santa Fe.		Santa Rosa.		Abilene.		Big Spring.		Browns-ville.		Corpus Christi.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	73	38	76	40	93	57	97	58	.....	43	92	40	82	46	90	58	79	51	89	52	96	69	100	68	91	73	87	73
2....	79	38	74	38	92	56	96	60	.....	46	92	44	80	47	92	56	79	54	90	55	96	70	100	68	90	68	86	71
3....	76	42	73	38	93	59	93	63	.....	48	86	48	78	48	92	58	79	54	90	63	95	72	96	70	88	70	82	71
4....	81	42	73	41	89	68	96	58	.....	53	84	44	78	45	82	58	73	51	80	56	89	70	79	64	88	72	82	74
5....	79	42	74	44	89	49	95	59	.....	42	85	38	80	50	90	57	76	50	90	54	82	71	91	63	88	73	83	73
6....	75	37	69	35	89	55	95	67	.....	38	88	44	75	48	92	55	73	50	91	49	94	69	101	62	88	68	81	73
7....	76	40	69	36	85	65	96	62	74	42	70	45	70	50	81	57	68	48	75	56	87	65	85	62	90	68	81	72
8....	69	39	67	36	82	48	95	60	62	48	65	44	70	43	75	56	58	46	68	54	77	65	79	58	90	69	81	72
9....	66	40	70	42	85	55	87	56	73	46	70	45	70	40	77	58	65	44	70	54	66	60	88	58	89	69	81	73
10....	63	41	62	41	87	60	78	59	66	53	67	50	72	50	67	59	59	49	64	53	72	61	88	60	79	65	82	71
11....	63[1]	35	62	32	86	55	78	62	70	53	78	45	75	40	70	60	69	40	74	55	76	62	89	62	82	68	79	72
12....	62[1]	40	59	41	89	59	90	60	79	56	81	43	78	45	78	60	71	51	75	54	80	65	82	64	.....	69	81	71
13....	73	31	66	33	93	53	91	60	86	44	86	41	80	47	87	59	75	49	88	59	86	62	86	63	83	68	81	71
14....	78	37	74	37	94	63	92	61	85	44	90	39	82	48	89	60	79	51	91	55	86	67	91	66	83	71	81	76
15....	82	42	79	41	92	63	91	62	.....	.....	90	54	84	50	89	59	81	57	89	59	89	68	93	62	86	72	83	73
16....	83	40	74	43	88	60	93	60	81	50	86	48	82	50	87	59	78	56	85	57	86	67	93	67	83	70	82	73
17....	79	40	75	41	86	62	92	61	78	49	82	44	78	50	78	63	74	54	85	57	86	69	87	68	80	72	78	73
18....	82	40	73	43	88	62	90	62	75	56	84	45	73	52	77	62	72	55	81	61	77	66	83	65	83	73	80	77
19....	80	45	74	45	89	61	82	65	79	50	87	49	75	50	81	63	77	51	85	58	83	68	.....	.....	83	73	80	75
20....	79	45	75	40	89	60	86	64	82	50	84	44	78	48	86	59	79	52	84	55	88	68	92	64	85	74	83	74
21....	76	43	74	42	86	64	84	64	75	48	88	48	75	48	83	60	74	53	80	56	90	67	93	65	81	.....	83	75
22....	77	42	70	42	85	62	89	66	75	52	87	47	78	50	84	60	73	48	84	56	90	70	89	66	84	71	83	74
23....	78	40	74	42	87	60	92	64	80	51	82	44	76	48	87	61	71	53	88	59	88	73	93	69	86	71	84	77
24....	78	42	71	43	90	61	94	63	84	52	86	48	82	58	92	62	77	50	91	61	89	74	94	70	86	75	84	77
25....	80	39	74	41	92	61	98	65	85	48	89	50	84	50	94	60	79	52	92	60	90	73	96	71	87	75	83	79
26....	81	40	78	44	94	58	99	66	89	50	87	52	84	54	94	62	82	53	95	56	91	71	95	72	88	69	84	77
27....	83	45	77	45	94	67	97	65	80	55	85	56	85	53	89	63	78	61	88	63	91	70	94	70	84	72	85	75
28....	80	40	77	52	92	73	90	65	78	53	87	54	79	55	87	63	71	53	87	62	89	69	91	69	83	74	82	73
29....	78	42	73	48	94	65	91	66	86	55	89	47	84	51	88	64	77	56	84	59	85	70	79	69	82	73	83	78
30....	79	39	76	34	96	64	95	63	85	51	90	48	84	50	91	61	80	50	88	51	89	72	84	67	86	73	83	79
Mns..	76.3	40.2	72.1	40.7	89.6	60.2	91.4	62.2	78.6[a]	49.2[a]	83.9	46.3	78.4	48.8	85.0	59.7	74.2	51.4	84.0	56.6	86.2	68.1	90.0[a]	65.6[a]	85.4[a]	71.0[a]	82.3	74.1

Date.	Texas.																											
	Del Rio.		El Paso.		Fort McIntosh.		Fort Stockton.		Fort Worth.		Galveston.		Halletts-ville.		Houston.		Lufkin.		Palestine.		Plain-view.		San Antonio.		Seymour.		Taylor.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	94	73	93	65	102	76	96	62	100	73	84	75	96	72	94	70	96	66	92	70	96	60	95	72	.....	.....	94	70
2....	98	74	92	66	100	73	95	61	98	73	83	74	97	71	91	70	94	65	93	71	96	59	94	70	.....	.....	95	69
3....	94	73	93	67	100	77	97	64	100	73	81	75	95	65	90	68	92	65	90	67	89	63	94	69	.....	.....	93	68
4....	85	72	90	65	101	70	104	65	92	73	82	75	96	68	90	70	92	67	90	68	76	58	91	71	.....	.....	90	67
5....	91	72	89	57	98	70	102	64	89	71	82	75	96	68	91	68	92	64	87	68	87	60	89	71	.....	.....	90	66
6....	93	71	90	64	95	75	100	70	92	73	83	76	94	70	89	70	92	64	90	68	94	66	92	70	.....	.....	92	71
7....	76	66	82	59	100	71	96	59	92	69	84	77	94	69	90	71	92	62	89	70	86	60	91	72	80	50	90	68
8....	88	65	82	55	95	73	91	57	81	68	85	76	92	70	92	71	93	67	91	69	64	57	90	73	79	52	90	70
9....	90	67	84	57	97	68	87	60	74	64	80	70	92	73	90	69	80	69	74	65	64	53	89	68	84	62	81	69
10....	90	70	85	63	94	73	85	61	72	60	77	72	89	69	76	70	70	63	70	61	64	53	87	69	.....	.....	77	67
11....	80	68	88	62	87	67	84	65	77	63	75	69	86	68	76	67	81	63	77	62	69	54	82	68	.....	.....	80	64
12....	84	68	90	63	90	75	82	65	79	59	75	68	84	66	77	64	80	57	78	56	74	58	84	66	.....	.....	81	62
13....	87	70	93	62	100	74	95	62	86	61	78	71	88	68	81	65	87	55	83	60	85	57	88	64	87	60	86	62
14....	91	72	91	64	96	78	95	65	88	66	80	72	91	69	86	66	91	57	86	59	89	59	89	68	90	60	88	65
15....	92	71	93	65	96	72	93	64	89	64	81	75	92	65	84	67	92	60	88	61	89	59	92	66	90	60	89	60
16....	93	74	88	65	96	70	93	66	89	72	80	76	88	73	85	73	90	68	88	68	89	54	82	70	90	60	87	70
17....	81	70	86	68	98	68	89	65	86	70	78	72	87	74	82	72	85	70	85	70	88	61	83	71	78	68	88	70
18....	81	69	89	67	90	76	80	64	84	71	80	75	87	73	83	73	89	70	81	69	78	63	79	71	85	65	83	70
19....	80	69	89	62	88	70	80	62	91	71	91	76	91	68	92	70	95	63	90	66	75	62	84	71	89	65	89	68
20....	87	66	86	63	90	77	88	62	92	73	86	76	95	73	92	74	96	71	91	73	85	61	90	68	92	65	96	71
21....	89	69	84	65	89	71	88	61	95	72	83	76	93	71	90	72	91	70	89	70	80	61	92	70	90	65	91	71
22....	85	73	83	62	94	75	89	61	92	72	84	77	94	72	89	71	92	72	90	71	80	63	86	72	93	72	91	70
23....	87	74	88	62	91	74	90	65	90	73	84	78	95	73	90	72	92	69	91	72	85	62	90	73	93	72	91	72
24....	82	72	91	70	93	76	94	65	93	74	84	78	95	74	88	73	92	70	90	73	91	65	89	74	95	72	91	74
25....	89	74	94	69	99	76	97	68	93	76	84	78	96	74	90	72	97	67	92	72	94	67	92	74	95	72	91	74
26....	88	74	96	64	96	79	92	68	93	74	86	72	95	73	91	72	97	68	90	69	91	66	94	72	96	72	91	70
27....	92	74	92	72	95	73	91	64	92	73	84	79	90	74	87	74	93	77	90	72	89	60	90	70	96	71	92	73
28....	88	73	91	71	92	73	91	65	90	73	83	73	87	77	82	74	91	72	88	70	87	61	80	71	94	72	84	72
29....	87	72	94	70	94	73	84	67	85	72	84	79	94	75	89	73	93	74	85	71	81	64	84	71	97	71	87	71
30....	89	74	96	66	95	75	92	64	90	72	85	79	97	75	92	75	94	72	90	72	79	63	88	71	92	70	91	72
Mns..	87.7	71.0	89.4	64.3	95.1	73.3	91.3	63.7	88.8	69.9	82.2	74.8	92.2	71.0	87.3	70.5	90.4	66.6	86.9	67.8	83.1	60.3	88.3	70.2	89.8[1]	65.5[1]	88.6	68.9

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 9, COLORADO VALLEY.

FREDERICK H. BRANDENBURG, District Editor.

GENERAL SUMMARY.

The weather conditions in the Colorado Basin were of the type common during June. There were great extremes of temperature, ranging from freezing in each of the different areas, except southeastern Nevada, to more than 100° in eastern Utah, western New Mexico, Arizona, and southeastern Nevada. The precipitation in the northern and central parts of the basin was somewhat above the normal, and in general caused a material improvement in the situation, but in the southern part the drought remained unbroken, although in southeastern Arizona and adjacent part of New Mexico beneficial showers occurred after the middle of the month. Grass on the ranges is still poor and stock water is scarce. Dust storms occurred on a number of dates. Snow fell on the 10th in the central mountain region of Colorado, and also over a considerable area on the 12th.

TEMPERATURE.

The monthly mean for the stations reporting was 66.9°, or 1.6° below the normal. The mean for June, 1912, was 67.9°. The highest monthly mean was 83.8° at Aztec, Ariz., and the lowest, 42.2°, at Corona, Colo. A well defined cool spell set in on the 8th and lasted till the 14th; temperatures were also low from the 26th to the end of the month. During the rest of the month temperatures in general were close to the normal. With a few local exceptions the highest temperatures occurred during the latter half of the month, and the lowest during the first half, principally on the 11th or 12th. The highest temperature, 114°, occurred at Maricopa, Ariz., on the 20th, and the lowest, 17°, at Big Piney, Wyo., on the 7th.

Details of temperature are summarized in the following table:

Areas of States in district No. 9.	Temperature.					
	Mean.	Departure from normal.	Highest.	Station.	Lowest.	Station.
Western Wyoming	55.2	+2.5	91	Green River	17	Big Piney.
Western Colorado	59.1	−0.4	97	Grand Valley	18	Fraser.
Eastern Utah	66.2	−0.7	103	Springdale	23	Scofield.
Western New Mexico	66.6	−1.2	102	Rodeo	26	Luna.
Arizona	72.6	−2.8	114	Maricopa	20	Flagstaff No. 1.
Southeastern Nevada	72.1	+2.4	105	Logan	36	Caliente.

PRECIPITATION.

The average for the stations reporting was 0.67 inch, or 0.06 inch below the normal. The average for June, 1912, was 0.93 inch. Showers occurred every day somewhere in western Colorado, but in the other areas they occurred less often and in fewer localities. In Arizona practically all the rainfall occurred between the 16th and 23d. A rainfall of an inch or more in 24 hours occurred at only 7 stations, 1 in western Wyoming and 6 in western Colorado. The greatest monthly amount was 4.88 inches at Gladstone, Colo., while none occurred at 2 stations in eastern Utah, 1 in western New Mexico, and 28 in Arizona. A measurable amount of snow fell at 6 stations in Colorado. At Horsefly, Colo., the fall was 8 inches, and at Marshall Pass, Colo., 13 inches.

The average number of days with 0.01 inch or more precipitation was 8 in western Wyoming, 7 in western Colorado, 3 each in eastern Utah and western New Mexico, and 1 each in southeastern Nevada and Arizona. For the district as a whole the average was 4 days.

The average precipitation and departures from the normal on the different watersheds are given in the following table:

Watershed.												
Green.		Grand.		San Juan.		Little Colorado.		Gila.		Mimbres.		Colorado Proper.	
Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.
1.35	+0.41	1.46	+0.56	1.45	+0.16	0.18	−0.36	0.18	−0.15	0.63	−0.09	0.18	+0.08

MISCELLANEOUS.

The average amount of sunshine in percentages, with departures from the normal, was as follows: Grand Junction, 71, −8; Durango, 74, −11; Phoenix, 96, +3; and Yuma, 98, +1.

The relative humidity reported was: Grand Junction, 41, +8 per cent; Durango, 50, +4; Phoenix, 26, +3; and Yuma, 40, +3.

RIVERS.

The volume discharged by the Green, Grand, and San Juan Rivers was much below the average and in case of the Grand the least in 6 years. The highest stages, which were much lower than common, occurred at the beginning of the month, except in the lower reaches of the Colorado River. At Topock, Ariz., the highest stage, 13.8 feet, occurred on the 8th, and at Yuma, Ariz., 21.3 feet occurred on the 11th.

TABLE 1.—*Climatological data for June, 1913. District No. 9, Colorado Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Big Piney	Lincoln	6,800	....	47.2	.....	87	16	17	7	56	1.53	.....	0.60	0	6	5	0	25	.....	Ira Dodge.
Daniel	....do	6,740	14	53.2	+ 2.5	79	13	32	12	45	2.30	+ 1.17	0.57	0	8	0	23	7	nw.	J. M. Van Dervort.
Eden	Sweetwater	6,577	4	57.6	.....	84	21	34	6	45	1.97	.....	0.47	0	7	5	23	2	w.	Eden Val. L. & I. Co.
Green River	....do	6,083	8	61.0	.....	91	22	34	30	47	0.96	.....	0.50	0	5	0	15	15	w.	Geo. H. Maxom.
Pinedale	Fremont	7,167	7	54.9	.....	85	21	31[a]	13†[g]	54[g]	2.54	.....	0.77	0	9	9[g]	10[g]	4[g]	nw.	U. S. Forest Service
Wamsutter	Sweetwater	6,702	....	60.4	.....	90	21	34	12†	51	2.02	.....	0.95	0	7	16	6	8	sw.	T. C. Sherman.
Willow Creek Cabin	Fremont	7,500	4	51.8	.....	75[c]	19	24[c]	1	49[c]	4.33	.....	1.44	0	14	5[c]	13[c]	9[c]	sw.	U. S. Forest Service.
Colorado.																				
Ashcroft	Pitkin	9,483	11	50.6	− 0.6	76	27	23	13	47	3.51	+ 2.01	1.22	0	14	.....	.....	.....	.....	Dan McArthur.
Blue Valley Ranch	Grand	7,525	....	58.8[b]	.....	82[b]	27	32[b]	11	44[b]	1.06	.....	0.42	0	8	16	7	7	.....	L. R. Hubbard.
Breckenridge	Summit	9,536	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Albert S. McCullough.
Buford	Rio Blanca	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. H. Genier.
Cascade	San Juan	8,900	6	.....	.....	.....	.....	.....	.....	.....	3.51	.....	1.45	0	9	8	7	15	.....	The Western Colorado P. Co
Cedaredge	Delta	6,175	15	63.8	− 0.7	86	16	38	11	38	0.78	+ 0.28	0.25	0	7	12	16	2	.....	Harry A. Cobbett.
Cochetopa	Saguache	9,088	4	.....	.....	.....	.....	.....	.....	.....	1.32	.....	0.50	0	6	3	11	16	sw.	Miss Bessie McDonough.
Collbran	Mesa	6,000	20	62.0	− 0.4	83	15†	37	12†	37	1.11	+ 0.44	0.38	0	6	15	11	4	sw.	A. A. Wood.
Columbine	Routt	8,766	3	.....	.....	.....	.....	.....	.....	.....	1.47	.....	0.38	0	11	18	10	2	sw.	Mrs. M. A. Caron.
Columbine Ranch	Delta	6,925	3	.....	.....	.....	.....	.....	.....	.....	1.31	.....	0.43	0	5	18	7	5	s.	George W. Wade.
Corona	Grand	11,660	6	42.2	.....	60	27	25	11†	27	2.87	.....	0.73	.....	20	.....	.....	.....	w.	U. S. Weather Bureau.
Cortez	Montezuma	6,100	2	66.0	.....	88	16†	31	11	49	T.	.....	T.	0	0	20	5	5	s.	W. G. Clucas.
Crawford (near)	Montrose	6,600	3	61.5	.....	84	27	32	12	34	0.90	.....	0.35	0	4	15	13	2	.....	C. W. Roe.
Crested Butte	Gunnison	8,867	3	48.8	.....	75	20†	25	13†	45	2.86	.....	1.22	0	8	6	11	13	.....	Charles L. Ross.
Delta	Delta	4,965	23	66.6	− 1.2	94	20	40	10†	49	0.26	− 0.06	0.15	0	3	16	12	2	.....	E. M. Getts.
Dillon	Summit	8,800	3	48.6	.....	78	27	25	3†	50	1.25	.....	0.56	0	9	7	12	11	sw.	Mrs. Nannie B. Strong.
Durango	La Plata	6,534	19	61.0	− 1.7	85	16	37	11	44	1.69	+ 0.91	0.96	0	7	9	17	4	nw.	U. S. Weather Bureau.
Eureka	San Juan	10,000	6	.....	.....	.....	.....	.....	.....	.....	0.64	.....	0.14	T.	5	14	10	6	s.	The Western Colorado P. Co.
Fraser	Grand	8,560	4	47.4	.....	75	27	18	2†	50	1.76	.....	0.42	T.	11	1	3	26	e.	L. D. C. Gaskill.
Fruita	Mesa	4,510	14	68.5	0	94	20†	40	30	51	0.23	− 0.07	0.09	0	5	15	11	4	se.	J. B. Willsea.
Glade Park	....do	7,000	2	.....	.....	.....	.....	.....	.....	.....	0.82	.....	0.33	0	6	13	16	11	sw.	A. F. Terrill.
Gladstone	San Juan	10,400	6	.....	.....	.....	.....	.....	.....	.....	4.88	.....	1.31	0	10	9	7	14	ne.	The Western Colorado P. Co.
Glenwood Springs (near).	Garfield	5,823	15	60.2	− 1.1	88	30	36	3	50	0.91	+ 0.23	0.30	0	5	23	1	6	w.	E. A. O'Neil.
Grand Junction	Mesa	4,602	22	71.0	− 1.6	92	20	47	12	37	0.37	− 0.03	0.24	0	3	10	15	5	se.	U. S. Weather Bureau.
Grandlake	Grand	8,153	5	.....	.....	.....	.....	.....	.....	.....	0.92	.....	0.50	T.	4	21	5	4	w.	Mrs. Belle Kauffman.
Grand Valley	Garfield	5,089	21	66.0	− 0.1	97	16	37	13†	54	1.21	+ 0.61	0.52	0	9	10	12	8	.....	David Evans.
Gunnison	Gunnison	7,670	20	55.2	− 0.3	79	5†	29	13	46	1.43	+ 0.79	0.85	0	7	7	23	0	sw.	Clarence Adams.
Hayden	Routt	6,337	....	60.8	.....	89	28	36	11†	46	1.49	.....	0.46	0	11	6	14	10	e.	A. W. Friederich.
Hesperus (near)	La Plata	7,610	1	.....	.....	.....	.....	.....	.....	.....	0.74	.....	0.50	0	5	8	14	8	.....	G. F. Snyder.
Horsefly	Montrose	8,700	3	.....	.....	.....	.....	.....	.....	.....	1.01	.....	0.70	8.0	3	14	13	3	sw.	Lawrence J. Finch.
Ironton	Ouray	10,000	3	.....	.....	.....	.....	.....	.....	.....	3.14	.....	0.82	T.	7	5	13	12	s.	Mrs. Amanda E. Foley.
Lake City	Hinsdale	8,686	8	54.2	.....	79	16	29	13	42	2.42	.....	0.69	0.4	13	5	20	5	s.	J. F. Maurer.
Lay	Moffat	6,190	19	60.3	+ 1.0	86	16†	29	4	54	0.70	+ 0.04	0.19	0	6	14	5	11	sw.	A. G. Wallihan.
Mancos	Montezuma	6,960	4	62.3	+ 2.0	88	23	31	11	48	0.31	− 0.61	0.13	0	3	7	9	14	s.	Miss Gertrude Rickner.
Marble	Gunnison	7,951	4	55.0	.....	80	27	29	13†	45	2.22	.....	0.85	0	8	22	4	4	e.	F. E. Morse.
Marshall Pass	Saguache	10,846	10	.....	.....	.....	.....	.....	.....	.....	2.06	+ 0.46	0.78	13.0	6	10	12	8	.....	Wm. L. Williams.
Meeker (near)	Rio Blanca	6,182	21	57.8	− 1.4	84	23†	31	7	49	0.85	− 0.17	0.38	0	4	16	10	4	sw.	T Baker.
Montrose	Montrose	5,811	24	64.6	+ 0.7	88	15†	37	11	42	0.69	+ 0.33	0.22	0	6	10	17	3	.....	U. S. Reclamation Service.
Nast	Pitkin	7,953	3	52.6	.....	78	28	29	12†	43	0.92	.....	0.71	T.	2	18	8	4	w.	Arthur Hanthorn.
Pagosa Springs	Archuleta	7,108	6	57.2	.....	87	7	27	6†	54	1.71	.....	0.60	0	10	13	13	4	sw.	E. T. Walker.
Palisades	Mesa	4,729	2	69.6	.....	96	27	40	29	50	0.76	.....	0.42	0	3	13	12	5	.....	E. P. Updegraff.
Paonia	Delta	5,694	18	66.6	0	91	16†	40	12†	43	1.15	+ 0.72	0.41	0	5	9	20	1	sw.	J. M. Underwood
Pitkin	Gunnison	9,500	4	.....	.....	.....	.....	.....	.....	.....	2.59	.....	0.85	1.0	7	11	11	8	.....	Mrs. Maggie Camman.
Pyramid	Rio Blanca	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. E. Egry.
Redcliff	Eagle	8,695	20	.....	.....	.....	.....	.....	.....	.....	1.04	− 0.31	0.50	0	5	17	7	6	.....	Dorothea Greiner.
Redvale	Montrose	6,300	....	61.7	.....	85	16†	33	11	40	1.25	.....	0.54	0	4	13	7	10	sw.	Dr. E. S. C. Foster.
Rico	Dolores	8,824	11	.....	.....	.....	.....	.....	.....	.....	2.76	+ 1.59	0.72	0	14	14	14	2	n.	Clinton B. Smith.
Rifle	Garfield	5,437	2	65.0	.....	90	15†	38	13	43	0.78	.....	0.22	0	6	14	9	7	sw.	Herman Eiche.
River Portal	Montrose	6,570	7	65.3	.....	89	22	38	12	41	1.22	.....	0.37	0	7	16	11	3	.....	U. S. Reclamation Service.
Sapinero (near)	Gunnison	8,125	10	52.4	− 0.9	74	15†	29	13	41	1.80	+ 0.90	0.48	0.8	9	11	13	6	w.	W. F. Irving.
Shoshone	Garfield	6,110	3	65.4	.....	89	27	44	12	37	1.87	.....	0.41	0	10	17	1	12	.....	Central Colorado Power Co.
Silverton (near)	San Juan	9,400	6	47.5	.....	70	16†	20	7	45	3.73	.....	1.25	0	11	7	10	13	sw.	The Western Colorado P. Co.
Spruce Lodge	Grand	9,600	5	.....	.....	.....	.....	.....	.....	.....	2.64	.....	0.55	0	18	5	12	13	n.	H. J. Wills.
Steamboat Springs	Routt	6,683	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Herbert B. Gee.
Tacoma	La Plata	7,300	6	.....	.....	.....	.....	.....	.....	.....	2.95	.....	0.90	0	8	4	8	18	s.	The Western Colorado P. Co.
Telluride	San Miguel	8,756	1	51.8	.....	78	16†	25	13	50	1.74	.....	0.58	3.1	8	9	16	5	ne.	David S. Painter.
Terminal Dam	La Plata	8,300	6	.....	.....	.....	.....	.....	.....	.....	2.51	.....	0.75	0	9	15	10	5	sw.	The Western Colorado P. Co.
Yampa (near)	Routt	8,000	4	.....	.....	.....	.....	.....	.....	.....	0.86	.....	0.41	0	5	17	12	1	sw.	Wm. A. Charls.
Utah.																				
Aneth	San Juan	4,800	9	74.6	.....	95	20†	40	11	42	0.00	.....	0.00	0	0	25	4	1	.....	Howard R. Antes.
Bluff	....do	4,200	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Herbert H. Redd.
Boneta	Wasatch	6,750	1	.....	.....	.....	.....	.....	.....	.....	2.02	.....	0.61	0	5	.....	.....	.....	sw.	Oscar Wilkins.
Canaan	Washington	.....	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. M. Lauritzen.
Castle Dale	Emery	5,500	14	59.4	− 4.1	88	23	27	12	51	0.35	− 0.20	0.10	0	4	18	11	1	.....	Miss Fay Jeffs.
Cisco	Grand	4,100	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John J. Anderson.
Dragon	Uinta	6,000	3	63.8	.....	87	16†	34	12†	48	1.64	.....	0.77	0	12	9	13	8	s.	Homer D. Ford.
Duchesne	Wasatch	5,500	6	60.4	.....	88	22	33	11	49	0.88	.....	0.40	0	5	9	12	9	.....	Matthew M. Smith.
Elkhorn	Uinta	6,657	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chas. DeMoisey, jr.
Emery	Emery	6,200	12	60.2	+ 0.6	86	21†	30	11	41	0.35	− 0.03	0.35	0	1	3	0	27	n.	Hans C. Wickman.
Escalante	Garfield	5,700	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. H. Barney.
Fort Duchesne	Uinta	4,941	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. W. Dickson.
Fruitland	Wasatch	7,625	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Peter Naab.
Grayson	San Juan	6,000	6	64.0	.....	86	20	35	11	38	0.10	.....	0.10	0	1	15	6	9	s.	E. F. Thompson.
Green River	Emery	4,080	13	72.0	− 1.9	97	20†	41	29	51	0.96	+ 0.88	0.45	0	3	13[b]	14[b]	1[b]	sw.	Edgar E. Adams.
Hanksville	Wayne	4,200	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. J. Weber.
Hite	Garfield	3,500	13	77.8	± 0.0	100	20	48	12	41	0.05	− 0.15	0.05	0	1	17	10	3	.....	John P. Hite.
Hurricane	Washington	3,800	1	.....	.....	.....	.....	.....	.....	.....	0.01	.....	0.01	0	1	8	13	9	.....	Amos Workman.
Kanab	Kane	4,925	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Vermilion Co.
La Sal	San Juan	7,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Gertrude W. Carpenter.
Leeds (near)	Washington	3,400	1	72.2	.....	95	21†	48	11	36	T.	.....	T.	0	0	12	2	16	.....	B. F. Anderson.
Loa	Wayne	7,000	17	.....	.....	.....	.....	.....	.....	.....	0.97	+ 0.81	0.97	0	1	.....	.....	.....	.....	F. E. Brown.
Manila	Uinta	6,225	3	59.2	.....	86	22	32	13	45	2.00	.....	0.60	0	8	6	20	4	.....	Daniel M. Nelson.

TABLE 1.—*Climatological data for June, 1913. District No. 9*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Utah—Continued.																			
Moab	Grand	4,000	23	72.6	+ 0.5	99	22	42	11	49	0.40	+ 0.15	0.36	0	2	9	14	7	..... Henry Crouse.
Monticello	San Juan	7,545	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..... Geo. F. Barton.
New Harmony	Washington	5,200	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..... Geo. F. Prince.
Orderville	Kane	6,660	3	.....	.....	.....	.....	.....	.....	.....	0.52	.....	0.25	0	3	.....	.....	.....	..... F. A. Porter.
Pine Valley	Washington	6,000	2	.....	.....	.....	.....	.....	.....	.....	0.35	.....	0.28	0	2	13	12	5	s. Mason Gardner.
Price	Carbon	5,557	2	66.8	.....	93	21†	37	29	50	0.49	.....	0.13	0	7	6	15	9	nw. George Mathis.
Ranch	Kane	6,700	11	56.0	± 0.0	83	21	32	1†	46	0.69	+ 0.36	0.39	0	2	19	10	1	w. J. W. Seaman.
San Rafael	Emery	4,250	1	.....	.....	.....	.....	.....	.....	.....	0.05	.....	0.05	0	1	19	6	5	sw. Jos. J. Nouguier.
St. George	Washington	2,880	26	74.6	− 1.9	101	21†	45	1	54	0.06	− 0.01	0.02	0	4	16	12	2	..... Wm. Goodspeed.
Scofield	Carbon	7,625	4	51.7[j]	.....	81	22	23	11	54	2.47	.....	0.58	T.	8	11[j]	0[j]	9[j]	s. B. Newren.
Springdale	Washington	3,500	5	74.4	.....	103	28†	40	1†	50	0.00	.....	0.00	0	0	15	3	12	..... Hattie F. Wood.
Strawb'y Tun'l East	Wasatch	7,650	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..... U. S. Reclamation Service.
Teasdale	Wayne	7,000	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..... Henry Cullum.
Thompsons	Grand	5,150	2	70.2	.....	92	21	40	29	36	0.80	.....	0.48	0	6	16	6	8	sw. Mrs. A. M. Starmont.
Tropic	Garfield	7,000	16	59.0	− 2.5	88	21	34	1	42	0.48	+ 0.07	0.43	0	2	12	11	7	sw. E. P. Bolton.
Trout Creek Rngr	Uinta	9,200	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..... Forest Supervisor.
Vernal	....do	5,050	16	69.0	+ 3.1	98	2	35	4	61	1.09	+ 0.73	0.87	0	3	21	6	3	..... H. E. Dillman.
Victor	Emery	5,250	1	.....	.....	.....	.....	.....	.....	.....	0.45	.....	0.25	0	2	.....	.....	.....	..... F. F. Noyes.
White Rocks	Uinta	6,200	2	.....	.....	.....	.....	.....	.....	.....	0.16	.....	0.04	0	6	6	5	19	..... E. C. Sims.
Woodside	Emery	4,645	2	66.1	.....	94	20†	36	4	52	0.68	.....	0.35	0	5	14	10	6	s. D. P. Adams.
New Mexico.																			
Alma	Socorro	5,500	15	66.5	− 2.7	96	30	32	12	59	0.42	− 0.27	0.31	0	3	13	16	1	sw. Max A. Balke.
Aragon	....do	.....	6	62.8	.....	89[d]	30	35[d]	12	47[d]	0.42	.....	0.22	0	3	21	9	0	sw. John R. Milligan.
Aztec	San Juan	5,590	13	.....	.....	.....	.....	.....	.....	.....	T.	− 0.37	T.	0	0	11	16	3	sw. Dr. J. T. West.
Berger's Ranch	McKinley	8,000	1	57.0[d]	.....	83[d]	30	29[d]	13	50[d]	0.86	.....	0.46	0	3	16	11	3	e. Herman Berger.
Blackrock	....do	6,500	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..... P. Des Georges.
Bloomfield	San Juan	5,500	18	67.6	− 0.5	93	20†	37	11†	49	0.46	+ 0.07	0.28	0	3	15	13	2	sw. Fred LeClerc.
Cambray	Luna	4,215	14	.....	.....	99	29	.....	.....	.....	1.22	+ 0.56	0.70	0	4	18	5	7	e. Agent So. Pac. R. R.
Cliff	Grant	4,470	13	78.1	+ 3.6	100	30	42	2†	54	0.39	− 0.09	0.16	0	3	22	8	0	..... W. C. Belden.
Columbus	Luna	4,054	4	.....	.....	99	30	53	7	.....	1.37	.....	0.69	0	3	14	2	14	se. Agent E. P. & S. W. R. R.
Deming	....do	4,333	36	74.6	.....	100	17	42	15	50	0.28	− 0.31	0.28	0	1	.....	.....	.....	w. Agent So. Pac. R. R.
Dulce	Rio Arriba	6,756	16	60.5	+ 0.5	87	15†	29	29	54	1.76	+ 1.14	0.47	0	6	15	13	2	w. E. O. Green.
Farmington	San Juan	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..... Orville Ricketts.
Fort Bayard	Grant	6,152	44	67.2	− 3.8	90	30	44	11	38	0.51	− 0.25	0.23	0	7	17	6	7	w. U. S. General Hospital.
Fruitland	San Juan	4,800	19	67.6	− 0.7	93	20	35	11	47	T.	− 0.15	T.	0	0	10	18	2	sw. Cyril J. Collyer.
Gage	Luna	4,486	13	74.4	.....	92	26	52	7	29	0.25	− 0.37	0.20	0	2	15	9	6	sw. Agent So. Pac. R. R.
Gila Planting Station	Grant	6,475	2	66.4	.....	89	30	43	11	37	0.28	.....	0.09	0	7	20	8	2	sw. U. S. Forest Service.
G. O. S. Ranch	....do	8,000	1	62.4[e]	.....	92[e]	14†	30[e]	4†	58	1.21	.....	0.56	0	8	7	20	3	w. Victor Culberson.
Hachita	....do	4,504	4	.....	.....	101	27	50	12	.....	0.36	.....	0.33	0	2	23	5	2	se. Agent E. P. & S. W. R. R.
Haynes	Rio Arriba	6,600	2	63.1	.....	87	26	35	10†	45	0.81	.....	0.20	0	7	16	11	3	sw. Dr. John R. Haynes.
Hermanes	Luna	4,451	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..... Agent E. P. & S. W. R. R.
Lordsburg	Grant	4,245	31	73.3	− 4.8	96	30	48	11†	41	0.28	− 0.02	0.25	0	2	8	22	0	w. J. H. McClure.
Luna	Socorro	7,300	12	58.4	.....	89	30	26	12	57	0.38	− 0.28	0.28	0	2	12	18	0	w. C. B. Martin.
Mimbres	Grant	5,007	8	.....	.....	.....	.....	.....	.....	.....	0.70	.....	0.46	0	3	20	10	0	..... Charles Dennis.
Pinos Altos (near)	....do	7,253	2	.....	.....	.....	.....	34	12	.....	1.39	.....	0.56	0	9	14	16	0	w. O. L. Scott.
Pratt	....do	4,415	4	.....	.....	.....	.....	.....	.....	.....	0.04	.....	0.04	0	1	20	7	3	sw. Agent E. P. & S. W. R. R.
Putnam	San Juan	6,200	1	64.6[j]	.....	95[j]	16	37[j]	6†	49	.....	.....	.....	.....	.....	10	12	8	e. C. F. Spader.
Redrock	Grant	4,150	8	.....	.....	.....	.....	.....	.....	.....	0.23	.....	0.12	0	2	25	5	0	..... Robt. H. Woods.
Rodeo	....do	4,118	4	.....	.....	102	14	54	11†	.....	0.00	.....	0.00	0	0	17	10	3	sw. Agent E. P. & S. W. R. R.
Silver City	....do	5,860	2	68.4	.....	93	15†	42	11	43	0.42	.....	0.22	0	5	22	8	0	n. E. M. Brumback.
Arizona.																			
Allaires Ranch	Cochise	4,184	17	.....	.....	.....	.....	.....	.....	.....	0.03	− 0.24	0.03	0	1	21	9	0	sw. Thomas Allaire.
Alpine	Apache	8,500	4	53.6	.....	83	30	22	12	52	0.30	.....	0.25	0	2	19	5	6	sw. U. S. Forest Service.
Ashfork	Yavapai	5,229	2	.....	.....	.....	.....	.....	.....	.....	0.00	.....	0.00	0	0	26	3	1	..... Do.
Aztec	Yuma	492	15	83.8	− 6.7	112	21	52	11	41	0.00	− 0.01	0.00	0	0	27	3	0	w. Agent So. Pac. Ry.
Benson	Cochise	3,523	32	74.7	− 7.4	98	2†	47	11	45	0.20	− 0.11	0.20	0	1	21	4	5	w. Do.
Bisbee	....do	5,350	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..... Bisbee High Schools.
Blue	Greenlee	6,500	6	.....	.....	.....	.....	.....	.....	.....	0.21	.....	0.10	0	3	14	16	0	..... Mary A. Jones.
Bonita	Graham	4,916	39	.....	.....	.....	.....	.....	.....	.....	0.00	− 0.42	0.00	0	0	21	7	2	..... A. H. Jelley.
Bowie	Cochise	3,756	37	79.8	− 0.1	104	30	51	11	43[e]	0.64	+ 0.08	0.30	0	3	15	1	14	..... Agent So. Pac. Ry.
Buckeye	Maricopa	980	21	80.8	0.0	110	21	47	11	48	0.00	− 0.01	0.00	0	0	28	2	0	sw. H. E. Kell.
Canille	Santa Cruz	5,225	4	.....	.....	.....	.....	.....	.....	.....	0.40	.....	0.20	0	5	14	16	0	sw. Robert A. Rodgers.
Casa Grande	Pinal	1,396	32	.....	.....	.....	.....	.....	.....	.....	0.00	− 0.12	0.00	0	0	30	0	0	sw. Agent So. Pac. Ry.
Casa Grande Ruins	....do	1,422	5	80.9	.....	109	20	45	11	52	T.	.....	T.	0	0	25	3	2	w. Frank Pinkley.
Cavecreek (near)	Maricopa	1,452	6	82.6	.....	108	21	55	11	43	0.00	.....	0.00	0	0	28	1	1	sw. John B. Lammers
Chandler	....do	1,213	18	81.5	− 1.9	108	21	47	11	48	0.00	− 0.18	0.00	0	0	29	1	0	nw. F. V. N. Dana.
Chin Lee	Apache	6,090	5	64.6[d]	.....	.....	.....	28	29	54[b]	0.26	.....	0.21	0	2	11	6	13	sw. Rev. L. Ostermann, O. F. M.
Chlarsons Mill	Graham	8,000	6	63.4	.....	79	14†	41	11	32	1.12	.....	0.51	0	5	12	17	1	..... H. R. Chlarson.
Clifton	Greenlee	3,584	22	79.7	.....	103	28†	50	1	45	T.	− 0.58	T.	0	0	24	5	1	..... L. C. Kyhl.
Cochise	Cochise	4,219	15	71.9	− 7.2	99	19†	38	3	51[b]	0.16	− 0.03	0.07	0	3	21	0	9	w. Agent So. Pac. Ry.
Columbia	Yavapai	3,700	13	83.7	+ 0.6	106	24†	64	11	36	0.00	− 0.25	0.00	0	0	30	0	0	s. M. J. Nolan.
Cornville	....do	3,300	.....	71.7	.....	98	21†	40	11	47	0.27	.....	0.25	0	2	19	11	0	sw. N. F. Girdner.
Courtland	Cochise	4,543	4	.....	.....	.....	.....	.....	.....	.....	1.25	.....	0.80	0	5	16	6	8	nw. Agent E. P. & S. W. R. R.
Dos Cabezos	....do	5,250	5	70.0	.....	98	15	38	12	52	0.55	.....	0.55	0	0	19	9	2	w. Neil Erickson.
Douglas	....do	3,930	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..... Dr. F. T. Wright.
Dudleyville	Pinal	2,204	22	73.9	− 4.6	96	16	47	11	41	0.17	− 0.09	0.15	0	2	19	10	1	sw. George F. Cook.
Elgin	Santa Cruz	4,706	1	66.2	.....	95	19†	.....	.....	60[d]	0.00	.....	0.00	0	0	17	6	7	s. George Beebe.
Flagstaff	Coconino	6,907	21	56.3	− 3.0	82	20†	28	11	51	0.04	− 0.51	0.04	0	1	15	12	3	sw. G. T. Herrington.
Flagstaff (1)	....do	7,200	5	52.3	.....	83	20	20	11†	57	0.19	.....	0.10	0	2	25	4	1	sw. U. S. Forest Service.
Florence	Pinal	1,504	14	82.8	− 1.4	100	20†	50	10	48	0.00	− 0.02	0.00	0	0	27	3	0	w. Agent Ariz. Eastern R. R.
Fort Apache	Navajo	5,200	42	66.0	− 3.2	93	22†	37	10	49	0.20	− 0.33	0.10	0	2	28	0	2	nw. Post Surgeon, U. S. Army.
Fort Huachuca	Cochise	5,100	28	73.0	− 3.2	93	20†	50	6	37	0.01	− 0.49	0.01	0	1	26	1	3	se. Do.
Fort Mohave	Mohave	604	41	.....	.....	103	21	.....	.....	.....	0.00	− 0.04	0.00	0	0	.....	.....	.....	..... August F. Duclos.
Gila Bend	Maricopa	737	23	83.7	− 3.9	109	20†	52	10	46[a]	0.00	− 0.03	0.00	0	0	27	3	0	w. Agent So. Pac. Ry.
Globe	Gila	3,625	11	76.0	− 1.6	99	19†	45	11	42	0.03	− 0.27	0.03	0	1	20	10	0	sw. Dr. B. G. Fox.
Grand Canyon	Coconino	6,866	9	60.5	.....	88	30	30	1	55	T.	.....	T.	0	0	11	19	0	sw. Agent Grand Canyon R. R.
Grand Canyon (1)	....do	3,676	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..... B. W. Zachau.
Granite Reef Dam	Maricopa	1,325	20	81.1	− 1.9	105	19	49	11	42	0.03	− 0.06	0.03	0	1	24	6	0	w. U. S. Reclamation Service.
Hackberry	Mohave	3,500	.....	.....	.....	.....	.....	.....	.....	.....	0.04	.....	0.04	0	1	12	15	3	sw. A. N. Keech.
Hereford	Cochise	4,180	4	.....	.....	.....	.....	.....	.....	.....	0.04	.....	0.02	0	2	22	8	0	..... Agent E. P. & S. W R. R.
Holbrook	Navajo	5,069	23	71.1	− 1.8	98	26†	38	29	56	T.	− 0.18	T.	0	0	29	1	0	sw. Thorwald Larson.
Indian Oasis	Pima	3,000	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..... Joseph Menager.

TABLE 1.—*Climatological data for June, 1913. District No. 9*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Arizona—Continued.																				
Jerome	Yavapai	4,743	16	73.0	− 3.6	96	21	48	11	31	0.17	− 0.08	0.17	0	1	22	8	0	s.	Dr. L. A. Hawkins.
Keams Canyon	Navajo	6,600	9	64.8	.....	88	20	33	11	48	0.01	.....	0.01	0	1	15	12	3	se.	Fred A. Bartram.
Kingman	Mohave	3,326	10	72.5	− 1.5	99	21†	48	4	44	T.	− 0.06	T.	0	0	23		7	s.	Agent A. T. & S. F. Ry.
Lakeside	Navajo	6,500	15	59.1	.....	86	30	30	12	51	0.51	+ 0.12	0.33	0	2	18	1	11	sw.	Prof. J. Peterson.
McNeal	Cochise	4,100	3	.....	.....	.....	.....	.....	.....	.....	0.18	.....	0.18	0	1	20	4	6	sw.	Mrs. Gladys Taylor.
Maricopa	Pinal	1,186	37	83.6	− 5.7	114	20	49	11	51	T.	− 0.08	T.	0	0	26	4	0	w.	Agent So. Pac. Ry.
Marinette	Maricopa	1,150	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Theo. Katzenstein.
Moccasin	Mobave	4,500	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. G. Maxwell.
Mohawk Summit	Yuma	538	13	.....	.....	111	23	.....	.....	.....	0.00	0.00	0.00	0	0	22	7	1	e.	Agent So. Pac. Ry.
Naco	Cochise	4,579	4	.....	.....	.....	.....	.....	.....	.....	0.09	.....	0.05	0	3	22	8	0	s.	Agent E. P. & S. W. R. R.
Natural Bridge	Gila	4,990	24	.....	.....	.....	.....	.....	.....	.....	T.	− 0.27	T.	0	0	20	9	1	sw.	D. G. Goodfellow.
Nutrioso	Apache	8,000	3	.....	.....	.....	.....	.....	.....	.....	0.13	.....	0.06	0	4	15	5	10	sw.	U. S. Forest Service.
Oracle	Pinal	4,502	19	71.8	− 6.3	94	19	46	14	42	0.10	− 0.29	0.10	0	1	23	4	3	w.	J. W. Lawson.
Paradise	Cochise	5,436	7	65.1	.....	93	30	38	11	46	0.03	.....	0.03	0	1	13	15	2	sw.	J. C. Hancock.
Parker	Yuma	345	17	82.5	− 2.4	111	24†	50	11	55	0.00	− 0.04	0.00	0	0	29	1	0	sw.	M. A. Israel, M. D.
Payson	Gila	5,550	5	64.0	.....	90	1	30	11	54	T.	.....	T.	0	0	12	9	9	sw.	Mart. McDonald.
Phoenix	Maricopa	1,108	19	81.9	− 2.5	105	21	55	11	39	0.00	− 0.12	0.00	0	0	23	6	1	e.	U. S. Weather Bureau.
Phoenix (1)	....do	1,092	23	80.6	− 2.2	109	21	49	11	50[a]	0.00	− 0.08	0.00	0	0	27	3	0	sw.	Geo. Acuff.
Phoenix (2)	....do	1,189	5	81.9	.....	107	21†	53	11	43	0.00	.....	0.00	0	0	27	2	1	sw.	Salt River Valley Nurseries.
Pinal Ranch	Pinal	4,520	19	.....	.....	.....	.....	.....	.....	.....	0.28	− 0.16	0.25	0	2	.....	.....	.....	.....	Irion & Craig.
Pinedale	Navajo	6,500	1	.....	.....	.....	.....	.....	.....	.....	0.37	.....	0.32	0	2	11	16	3	sw.	E. Thomas, jr.
Pinto	Apache	5,660	9	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.	0	0	25	4	1	sw.	Celia F. Henning.
Prescott	Yavapai	5,320	46	63.7	− 3.7	93	30	35	11	50	T.	− 0.27	T.	0	0	26	4	0	.....	Dr. J. W. Flinn.
Prescott Dry Farm	....do	5,008	1	68.0	.....	92	20†	40	4	45	0.00	.....	0.00	0	0	24	6	0	s.	L. L. Bates.
Quartzite	Yuma	800	6	83.4	.....	112	21	53	11	49	0.00	.....	0.00	0	0	18	11	1	s.	W. E. Scott.
Rice	Gila	2,540	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Arthur Pritchard.
Roosevelt	....do	2,175	9	.....	.....	.....	.....	.....	.....	.....	0.10	.....	0.10	0	1	16	14	0	w.	U. S. Reclamation Service.
Sacaton	Pinal	1,280	6	81.9	.....	108	20†	48	11	47	0.07	.....	0.07	0	1	.....	.....	.....	.....	E. W. Hudson.
St. Johns	Apache	5,650	9	64.4[e]	.....	92	27†	.....	.....	53[e]	0.20	.....	0.20	0	1	15	6	9	sw.	Alexander Shreeve.
St. Michaels	....do	6,950	26	63.4	− 1.2	87	30	31	11	49	T.	− 0.69	T.	0	0	16	13	1	sw.	Rev. A. Weber, O. F. M.
San Simon	Cochise	3,609	27	.....	.....	100	24†	.....	.....	.....	T.	− 0.12	T.	0	0	22	5	3	ne.	Agent So. Pac. Ry.
Seligman	Yavapai	5,219	8	64.1	.....	94	30	34	11	52	0.00	.....	0.00	0	0	18	0	12	sw.	Librarian, A. T. & S. F. Ry.
Sentinel	Maricopa	685	15	.....	.....	112	21	54	10	.....	0.00	− 0.01	0.00	0	0	30	0	0	sw.	Agent So. Pac. Ry.
Silverbell	Pima	2,664	8	.....	.....	104	30	.....	.....	.....	T.	.....	T.	0	0	29	1	0	s.	Imperial Copper Co.
Snowflake	Navajo	5,644	6	61.8	.....	92	30	28	11	60	0.03	.....	0.03	0	1	8	3	19	sw.	William J. Flake.
Springerville	Apache	6,862	3	60.6	.....	83	14	29	2	49	0.13	.....	0.10	0	3	19	7	4	sw.	U. S. Forest Service.
Supai	Coconino	3,200	7	79.5	.....	104	21	56	30	47	0.00	.....	0.00	0	0	21	6	3	.....	Laura B. Symons.
Tempe	Maricopa	1,165	9	81.0	.....	109	21	49	11	46	0.00	.....	0.00	0	0	24	6	0	nw.	F. H. Simmons.
Thatcher	Graham	2,800	10	78.0[d]	+ 1.3	105	27	45	12	53[d]	0.17	− 0.07	0.17	0	1	21	7	2	.....	J. H. Larson.
Tombstone	Cochise	4,550	18	76.8	− 0.5	98	18†	50	10	40	0.41	− 0.01	0.19	0	3	21	9	0	se.	F. N. Wolcott.
Truxton	Mohave	3,997	3	67.4	.....	97	21	.....	.....	56[e]	0.03	.....	0.03	0	1	18	9	3	s.	Truxton Canyon Indian School.
Tuba	Coconino	4,500	13	69.2	− 2.0	91	30	44	11	43	0.17	− 0.07	0.15	0	2	16	13	1	sw.	Ira E. Bell.
Tucson	Pima	2,390	33	78.2	− 3.7	105	20	49	11†	46	0.08	− 0.10	0.05	0	2	20	10	0	s.	University of Arizona.
Tucson (1)	....do	2,380	5	75.1	.....	105	20	42	12	53[a]	0.04	.....	0.02	0	2	22	8	0	sw.	Rev. James F. Record.
Tucson (2)	....do	2,526	4	77.8	.....	104	20	50	11†	47	0.03	.....	0.03	0	2	22	5	3	w.	U. S. Coast & Geodetic Survey.
Vail	....do	3,421	14	72.2	.....	102	20	42	10	49	T.	− 0.07	T.	0	0	.....	.....	.....	.....	Agent So. Pac. Ry.
Walnut Grove	Yavapai	3,649	20	.....	.....	.....	.....	.....	.....	.....	T.	− 0.06	T.	0	0	.....	.....	.....	.....	J. O. Carter.
Wickenburg	Maricopa	2,072	15	76.4	− 2.4	107	21†	44	10	51	0.06	+ 0.04	0.06	0	1	21	0	9	.....	Agent S. F. P. & P. Ry.
Willcox	Cochise	4,164	32	70.3	.....	96	19†	40	1†	54	0.00	.....	0.00	0	0	21	9	0	s.	Agent So. Pac. Ry.
Williams	Coconino	6,750	13	59.2	− 3.9	90	30	30	12†	54	0.00	− 0.20	0.00	0	0	22	0	8	.....	E. J. Nordyke.
Winslow	Navajo	4,855	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Winslow High School.
Yuma	Yuma	141	33	81.6	− 3.1	110	21	55	11	46	0.00	0.00	0.00	0	0	30	0	0	sw.	U. S. Weather Bureau.
Yuma (1)	....do	150	6	76.0	.....	104	19†	.....	.....	48[b]	0.00	.....	0.00	0	0	28	2	0	sw.	C. J. Wood.
Nevada.																				
Caliente	Lincoln	4,407	3	62.2	.....	90	20	36	2	48	0.04	.....	0.04	0	1	23	7	0	se.	Salt Lake Route.
Las Vegas	Clark	2,033	11	76.6	+ 2.4	104	21	52	11	43	0.31	+ 0.22	0.24	0	2	.....	.....	.....	.....	C. P. Squires.
Logan	....do	1,355	6	77.6	.....	105	21†	51	11	49	0.08	.....	0.08	0	1	27	3	0	s.	OrinW. Jarvis.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for June, 1913. District No. 9, Colorado Valley.*

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Wyoming.																																
Big Piney	Green				.01						.12														.40	.60	.30			.10		1.53
Daniel	do					.10	T.	T.	T.	.10	.24	T.						T.	T.	T.				27	T.	T.	.32	.55	.57		.15	2.30
Eden	do						.43				.47							T.							.07	.40	.25	.25	.10			1.97
Green River	do								.10	T.			T.			T.		.10			T.				T.	.15	.50	T.		.11		0.96
Pinedale	do					T.					.10	.48													.15	.07	.46	.77	.33	.16	.02	2.54
Wamsutter	do										.37		.07					.10						.01	.50	.95	T.		.02			2.02
Willow Creek Cabin	do					.03	.15	T.	.02	.03	.27	.26	.50					T.	.03					.44		.13	.28	1.44	.45	.30			4.33
Colorado.																																
Ashcroft	Grand	.04	.03					.13	.35	.31	1.22	.56	.33	.05					.38	.04				T.	.01				.05	.01		3.51
Blue Valley Ranch	Yampa	T.	T.					.02	.07	T.		.42	.16	.05					.05						.20	.09						1.06
Breckenridge	Grand																															
Buford	White																															
Cascade	San Juan				T.				.33	.12	1.45	.21	.78					.36	.11				.10	.05							3.51
Cedaredge	Gunnison										.25	.03	.10						.07	.15					.10			.08				0.78
Cochetopa	do				T.	T.		.20	.50	.30			.20				.08					.04										1.32
Collbran	Grand						T.	.12	T.	T.	.38	.04	.18					T.	T.				T	.05	.34	T.			T.			1.11
Columbine	Yampa							.02			.03	.17	.18	.15						.06			.17	.04	.38	.21			.06			1.47
Columbine Ranch	Gunnison									.30	.38	.43										.05			.15							1.31
Corona ‖	Grand	.10		.01	.02	.01	.05	.10	.06	.12	.73	.43	.58							.06			.03	.17	.19	.10	.02	.02		.04	.03	2.87
Cortez	San Juan										T.																					T.
Crawford (near)	Gunnison							.10		.35			.25											.20									0.90
Crested Butte	do		.05						.18	.22	.82	1.22	.13	T.	T.			T.	T.	T.			T.	T.	.02	T.	T.		.22				2.86
Delta	do									.10		.15				.01	T.									T.						0.26
Dillon	Grand							.06			.03	.56	.08						.12	.13	.01					.12			.14			1.25
Durango	San Juan					T.			.16	.08	.96		.06				T.	.31	T.			.02		T.					.10			1.69
Eureka	do						T.	T.	.10	.14	.10		.20				T.		.10	T.		T.	T.	T.	T.			T.	T.			0.64
Fraser ‖	Grand	.05							.12		.20	.42		.15					.30	.21					.15	.08	.03	.05				1.76
Fruita	do					T.	T.	.01		T.	.04	T.	.09					.03					T.	T.	.06	T.	T.					0.23
Glade Park	do					.01	T.	T.	.01		.02	T.	.25					.33	T.	T.	T.		T.	T.	.20	T.	T.	T.					0.82
Gladstone	San Juan				T.		T.	.11	.32	.14	.93	1.26						.27	1.31	T.			.35	.14	T.				.05				4.88
Glenwood Springs (near).	Grand								.10	.19			.30						.22						.10							0.91
Grand Junction	do						T.	T.	T.	T.	.01	T.	.12					T.	T.			T.	T.		.24							0.37
Grandlake	do					T.	T.	.10	T.	.20	.50	T.	.12																			0.92
Grand Valley	do							.04		T.	.52	.08	.22	.02	T.							.02		T.	.23	.01			.07			1.21
Gunnison	Gunnison	.04			T.		T.	T.			.20	.85	.12		T.		.06	.12	T.	T.		T.	T.	.04								1.43
Hayden	Yampa								.03	T.	T.	.46	.04	.13				.01	.13			.13		.01	.10	.37			.08			1.49
Hesperus (near)	La Plata									.03	.50		.10					.10											.01			0.74
Horsefly	Gunnison									T.	T.		.70					.16	.15	T.				T.								1.01
Ironton	do					T.	T.	T.	.60	T.	.73	.11	.47					T.	.82				.17	T.						.24		3.14
Lake City	do				.01	.01		.12	.32	.11	.69	.41	.30					.12	.25		.01	.03		.04					T.			2.42
Lay	Yampa							T.		.03	.19	.12	.15	.07							T.		T.	T.	T.	.14	T.					0.70
Mancos	San Juan								T.	T.	.13	T.	.11					.07	T.	T.		T.		T.					T.			0.31
Marble	Grand									.14	.34	.85	.18	.44					.08				.07		.12								2.22
Marshall Pass	Gunnison				.15			.30	.30		.38		.78											.15									2.06
Meeker (near)	White							T.		T.	.35		.38												.10	T.			.02			0.85
Montrose	Gunnison										.16	.21	.22						.08						.01				.01			0.69
Nast	Grand										.21	.71	T.																				0.92
Pagosa Springs	San Juan				T.				.22	.22	.11	.25	T.				T.	.09	.11	T.	.02	.04		.05					.60			1.71
Palisades	Grand							T.	T.	T.	.42	T.	.15											T.	.19	T.			T.			0.76
Paonia	Gunnison							T.	T.	.17	.37		.41					T.	T.			T.	T.	.11	.09		T.	T.	T.			1.15
Pitkin	do						.09		.85		.35	.85	.23						.11			T.	.11									2.59
Pyramid	Yampa																															
Redcliff	Grand				.10				.05	T.						T.			T.					.35					.50	.04	T.	1.04
Redvale	San Miguel								T.	T.	.16		.32					.54				.23	T.										1.23
Rico	Dolores		.07				.11				.06	.47		.21	.35			.72	.14	.16	.11	.15	.11		.06	.04		T.					2.76
Rifle	Grand									.17	.17	.04	.07	T.					.11						.22	T.							0.78
River Portal	Gunnison	T.						.12	.18	T.	.14	.24	.37					T.	.14					.03									1.22
Sapinero (near)	do	T.							.35	.21	.32	.12	.48				T.	.07	.21				T.	.03					.01			1.80
Shoshone	Grand							.02	.07	.17	.15	.41	.29	.10											.41	.11			.14			1.87
Silverton (near)	San Juan							.07	.29	.11	.80	.22	.25					.18	.23				1.25	.12					.21			3.73
Spruce Lodge	Grand	.15		.22	.04		.06	.08	.02	.07		.55	.20	.09				.01	.47	.10	.03		.19	.09	.26		.01					2.64
Steamboat Springs	Yampa																															
Tacoma	San Juan							.25	.18		.90	.58	.33					T.		T.		.04		.27					.40			2.95
Telluride	San Miguel	T.				T.	T.	T	.04	T.	.53	.32	.58						.03	.02			T.	.03					.19			1.74
Terminal Dam	San Juan								.30	.14	.75	.33	.35					.09				.08	.22						.25			2.51
Yampa (near)	Yampa								.08		.41							.12							23				.02			0.86
Utah.																																
Aneth	San Juan																															0.00
Bluff	do																															
Boneta	Green												.50												.45	.61	.21	.25				2.02
Canaan	Colorado																															
Castle Dale	Green												.05						.10							.10	.10					0.35
Cisco	Grand																															
Dragon	Green						.19		T.	T.	.11	.20	.77					.03	.02	.07			.02		.04	.03	.07		.09			1.64
Duchesne	do					T.						.08	T.					T.	T.							.40	.32	.02	.06			0.88
Elkhorn	do																															
Emery	Colorado										T.	.35					T.	T.														0.35
Escalante	do																															
Fort Duchesne	Green																															
Fruitland	do																															
Grayson	San Juan												.10																			0.10
Green River	Green									T.	T.	.45	.40						.11						T.		T.					0.96
Hanksville	Colorado																															
Hite	do											T.	.05					T.									T.	T.				0.05
Hurricane	do										.01										T.											0.01
Kanab	do																															
La Sal	Grand																															
Leeds (near)	Colorado							T.				T.						T.														T.
Loa	do																	.97														0.97
Manila	Green										.09		.24						.10						.60	.60	.25	.06	.06			2.00
Moab	Grand								T.	T.	T.	T.	.36					.04								T.						0.40
Monticello	do																															
New Harmony	Colorado																															
Orderville	do											.25						.20								.07	T.					0.52
Pine Valley	do									T.	T.	.28					.07	T.							T.	T.						0.35
Price	Green											.04	.13						.01						.05	.11	.07	.08				0.49
Ranch	Colorado											.36														.33						0.69

TABLE 2.—*Daily precipitation for June, 1913. District No. 9*—Continued.

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Utah—Continued.																																
San Rafael	Green							.02				.05					.01	.01														0.05
St. George	Colorado											.02						.10	.14						.23	.27	.44	.45	.58			0.06
Scofield	Green											.26																				2.47
Springdale	Colorado																															0.00
Strawberry Tunnel	Green																															
Teasdale	Colorado																															
Thompsons	Green								T.	.02		.11	.48					T.	.12						T.	T.	.02		.05			0.80
Tropic	Colorado											.05						.43									T.	T.				0.48
Trout Creek Ranger	Green																															
Vernal	do																									.87	.01	.21				1.09
Victor	do								.20																	.25						0.45
White Rocks	do							T.			.02	.02							T.					.03	.04	.03		.02	T.			0.16
Woodside	do											.35	.11					T.								.09	.10		T.	.03		0.68
New Mexico.																																
Alma	Gila							T.	.01								.10			.31												0.42
Aragon	do																T.	.10		.10	T.	.22	T.	T.								0.42
Aztec	San Juan								T.		T.							T.		T.		T.							T.			T.
Berger's Ranch	Little Colorado							T.	.46									.26	T.	T.	T.		.14									0.86
Blackrock	do																															
Bloomfield	San Juan					T.		T.	.15		.03						T.	.28	T.			T.						T.	T.			0.46
Cambray	Mimbres							T.		.25						.12			.15				.70				T.					1.22
Cliff	Gila																		.16	.13	.10											0.39
Columbus	Mimbres							.53										T.	.69					.15								1.37
Deming	do																	.28														0.28
Dulce	San Juan								.30	.33		.43							.47			13							.10			1.76
Fort Bayard	Mimbres							.02		T.								*	.03	.20	.02	.14	.10	T.								0.51
Fruitland	San Juan								T.													T.										T.
Gage	Mimbres																			.20	T.	T.	.05									0.25
Gila Planting Stat'n	do							T.	T.	T.							T.	.03	.07	.01	.04	.09	.02	.02								0.28
G. O. S. Ranch	Gila							.15	.04	.01						T.	T.	.04	.37		T.	.02	.56	.02								1.21
Hachita	do																						33	.03								0.36
Haynes	San Juan				T.			.14	.04	.10	.20						T.	.05	T.				.12	.16					T.			0.81
Hermanes	Mimbres																															
Lordsburg	Gila						T.		T.												T.	.03	.25									0.28
Luna	do									T.								T.	T.	T.	.28	T.	.10	T.								0.38
Mimbres	Mimbres																	.14	.10				46									0.70
Pinos Altos (near)	Gila							.04	.04		.08					.02	.24		.07	.56		.27	.07					T.				1.39
Pratt	do																	T.			T.	.04		T.								0.04
Putnam	San Juan																															
Redrock	Gila																T.	.12			.11	T.										0.23
Rodeo	do																															0.00
Silver City	Mimbres								T.	T.						T.	T.	.02		.10	.04	.04	.22									0.42
Arizona.																																
Allaires Ranch‖	Sonora																T.		.03													0.03
Alpine	Gila																		.25			.05										0.30
Asnfork	Verde																															0.00
Aztec	Gila																															0.00
Benson	San Pedro																			.20		T.										0.20
Bisbee	do																															
Blue	Gila									T.	T.						.02	T.	.09	.10		T.										0.21
Bonita	do																															0.00
Bowie	do									.04										.30	.30	T.	T.									0.64
Buckeye‖	do																															0.00
Canille	San Pedro															T.	.05	.08	T.	.01	.06	.20	T.									0.40
Casa Grande	Gila																															0.00
Casa Grande Ruins	do																	T.				T.	T.									T.
Cavecreek (near)	Desert																															0.00
Chandler	Salt																															0.00
Chin Lee	Little Colorado								T.								T.	.21	.05			T.										0.26
Chlarson's Mill	Gila																	.51		.03	.37	.01	.20									1.12
Clifton	do																				T.	T.	T.									T.
Cochise	Desert															.04		.07					.05									0.16
Columbia	Agua Fria																															0.00
Cornville	Verde																	.02				.25										0.27
Courtland	White																.03			.20	.80	.18	.04									1.25
Don Luis	San Pedro																															0.00
Dos Cabezos	Desert																						.55									0.55
Douglas	Sonora																															
Dudleyville	Gila																T.	.15			T.	T.	.02									0.17
Elgin	San Pedro																															0.00
Fairbank	do																T.			T.			T.	T.								T.
Flagstaff	Little Colorado																T.		.04			T.										0.04
Flagstaff (1)	do																T.	.10				.09	T.									0.19
Florence‖	Gila																															0.00
Fort Apache‖	Salt																	.10					.10									0.20
Fort Huachuca‖	San Pedro																	T.	T.		.01											0.01
Fort Mohave	Colorado																															0.00
Gila Bend	Gila																															0.00
Globe	Salt																				.03											0.03
Grand Canyon	Colorado																T.	T.														T.
Grand Canyon (1)	do																															
Granite Reef Dam	Salt																	.03														0.03
Greer	Little Colorado																															
Hackberry	Colorado								T.									.04														0.04
Hereford	Gila																															0.04
Holbrook	Little Colorado																T.	T.	T.													T.
Indian Oasis	Desert																															
Intake	Salt																															0.00
Jerome	Verde																		T.				.17									0.17
Keams Canyon	Little Colorado							T.											.01													0.01
Kingman	Colorado						T.																									T.
Lakeside	Little Colorado																	.33	T.				.18									0.51
Lewis Springs	San Pedro																.20															0.20
Lowell Observatory	Little Colorado																	.02	.03	T.	T.											0.05
McNeal	White																					.18		T.								0.18
Maricopa	Gila																T.															T.

TABLE 2.—*Daily precipitation for June, 1913. District No. 9*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Arizona—Contd.																																
Marinette	Agua Fria																															.....
Moccasin	Colorado																															.....
Mohawk Summit	Gila																															0.00
Naco	San Pedro																	.02				.02		.05								0.09
Natural Bridge	Verde																						T.									T.
Nutrioso	Little Colorado								.01	.02								.06		.04												0.13
Oracle	San Pedro															.10																0.10
Osborn	....do																		T.	T.				.03								0.03
Paradise	Desert																		T.				.03									0.03
Parker	Colorado																															0.00
Payson	Verde																	T.		T.		T.	T.									T.
Phoenix	Salt																															0.00
Phoenix (1)	....do																															0.00
Phoenix (2)	....do																															0.00
Pinal Ranch‖	Gila																.03						.25									0.28
Pinedale	Little Colorado																.05						.32									0.37
Pinto	....do							T.	T.	T.					T.	T.		T.		T.	T.	T.	T.									T.
Prescott	Hassayampa																T.															T.
Prescott Dry Farm	Verde																															0.00
Quartzsite	Colorado																															0.00
Rice	Gila																															.....
Roosevelt	Salt																						10									0.10
Sacaton	Gila																					.07										0.07
St. Johns	Little Colorado																	20														0.20
St. Michaels	....do							T.	T.									T.	T.	T.	T.	T.	T.									T.
San Simon	Gila																					T.										T.
Seligman	Verde																															0.00
Sentinel	Gila																															0.00
Silverbell	Santa Cruz																T.															T.
Snowflake	Little Colorado																	.03	T.													0.03
Springerville	....do										.02							.10					.01									0.13
Supai	Colorado																															0.00
Tempe	Salt																															0.00
Thatcher	Gila																	.17														0.17
Tombstone	San Pedro																			.18			.04	.19								0.41
Truxton	Colorado							T.									T.	.03														0.03
Tuba	Little Colorado											T.						.15	.02													0.17
Tucson	Santa Cruz																.03		.05				T.									0.08
Tucson (1)	....do																T.	T.	.02	.02												0.04
Tucson (2)	....do																					.03	T.	T.								0.03
Vail	....do																	T.														T.
Walnut Grove	Hassayampa																					T.										T.
Wickenburg	....do																					.06										0.06
Willcox	Desert																															0.00
Williams	Colorado																															0.00
Winslow	Little Colorado																															.....
Yuma	Colorado																															0.00
Yuma (1)	....do																															0.00
Nevada.																																
Caliente	Colorado										.04																					0.04
Las Vegas	....do				T.	.24	T.	.07																								0.31
Logan	....do							T.	T.		T.							.08														0.08

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for June, 1913. District No. 9, Colorado Valley.*

Date.	Wyoming.				Colorado.										Utah.										New Mexico.			
	Daniel.		Green River.		Durango.		Grand Junction.		Gunnison.		Meeker.		Steamboat Springs.		Emery.		Hite.		Moab.		St. George.		Vernal.		Bloomfield.		Fort Bayard.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	76	34	86	50	82	44	88	52	75	37	82	35	.....	.....	77	40	95	56	96	49	95	45	97	38	89	53	84	50
2	76	35	83	42	81	43	88	59	73	36	79	39	.....	.....	81	35	97	56	95	50	95	47	98	39	89	45	85	52
3	73	34	86	46	81	43	90	56	74	38	81	36	.....	.....	80	36	94	56	95	48	94	46	96	37	89	40	84	51
4	74	35	84	45	80	48	90	54	76	36	82	34	.....	.....	81	36	93	55	94	46	93	54	96	35	82	54	82	47
5	69	34	80	41	76	45	86	57	79	38	79	34	.....	.....	80	39	93	59	94	49	92	57	94	36	87	46	80	48
6	71	35	80	40	78	39	87	59	71	39	77	41	.....	.....	77	35	94	59	95	48	91	54	95	38	88	41	81	51
7	73	33	82	46	74	48	85	64	74	40	74	31	.....	.....	80	37	92	60	93	54	91	54	92	40	74	53	79	49
8	76	36	79	42	68	46	79	60	69	49	75	36	.....	.....	82	39	92	66	95	64	94	53	95	45	80	48	77	46
9	77	38	80	49	72	39	82	58	65	41	77	39	.....	.....	80	37	91	67	90	63	83	63	82	46	81	48	77	51
10	74	36	73	56	66	45	78	54	64	38	72	40	.....	.....	76	32	77	69	82	64	74	54	90	48	77	50	81	55
11	61	33	62	36	67	37	65	47	66	34	64	33	.....	.....	70	30	75	55	67	42	79	52	97	47	77	37	79	44
12	66	32	64	39	64	40	68	47	65	37	55	33	.....	.....	75	38	81	48	75	46	90	54	98	48	74	40	80	48
13	79	37	80	38	79	38	80	47	70	29	72	39	.....	.....	79	37	91	55	86	45	96	54	97	50	82	37	85	50
14	68	35	87	54	83	40	90	58	72	36	82	39	.....	.....	80	35	97	58	93	49	97	58	95	48	90	42	88	50
15	74	36	88	44	84	44	90	58	70	36	82	36	.....	.....	81	40	97	56	97	48	95	58	93	42	91	43	88	54
16	77	33	83	39	85	45	90	61	78	34	82	40	.....	.....	71	35	97	62	95	58	98	56	95	44	91	52	84	51
17	68	36	81	39	77	47	86	62	73	33	82	40	.....	.....	80	47	96	60	88	65	90	66	94	43	87	57	84	54
18	60	35	88	41	73	51	84	57	75	40	81	40	.....	.....	81	45	95	67	92	54	96	59	90	41	80	55	82	51
19	77	36	85	44	81	46	90	58	75	40	74	42	.....	.....	82	46	99	68	97	52	97	62	93	42	89	56	84	53
20	78	36	81	43	82	48	92	62	77	31	79	44	.....	.....	85	47	100	63	98	57	100	51	96	52	93	54	82	48
21	77	35	88	40	82	48	92	62	75	42	80	39	.....	.....	86	48	99	68	98	62	101	47	95	53	90	62	82	54
22	78	33	91	41	80	47	90	64	75	39	80	38	.....	.....	85	46	97	75	99	65	101	59	93	42	89	53	79	49
23	69	40	81	51	80	47	88	69	78	32	84	41	.....	.....	82	41	98	76	93	67	96	69	94	43	89	51	82	49
24	68	36	72	44	79	45	74	58	68	32	78	37	.....	.....	80	40	91	72	92	62	95	64	95	42	87	50	83	52
25	64	42	65	42	79	45	82	61	75	46	72	50	.....	.....	82	45	93	75	87	62	91	70	90	44	90	49	85	53
26	60	43	72	44	82	46	82	58	78	42	79	47	.....	.....	80	40	89	76	85	67	88	71	97	46	92	61	87	52
27	63	42	75	46	83	43	91	54	78	36	84	35	.....	.....	81	45	92	70	90	59	87	61	98	43	93	47	88	55
28	57	41	70	44	79	50	89	60	77	33	79	42	.....	.....	82	48	85	74	84	56	84	59	97	44	91	66	87	61
29	58	39	66	35	78	39	78	47	76	32	70	41	.....	.....	80	47	89	56	84	43	90	49	96	45	85	38	87	55
30	64	33	70	34	83	39	87	52	79	34	77	35	.....	.....	82	49	95	59	92	44	99	54	98	44	88	39	90	55
Mns.	70.2	6.1	78.7	43.2	77.9	44.2	84.7	57.2	73.3	37.2	77.2	38.5	.....	.....	79.9	40.5	92.5	63.2	90.7	54.6	92.4	56.7	94 5	43.5	86.3	48.9	83.2	51.3

Date.	Arizona.																				Logan, Nev.	
	Bisbee.		Flagstaff.		Fort Apache§§		Grand Canyon.		Parker.		Phoenix.		Prescott.		St. Michaels.		Tucson.		Yuma.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	.....	.....	74	30	86	40	85	30	100	60	98	62	81	40	81	38	97	53	96	58	97	53
2	.....	.....	74	31	88	40	82	36	100	58	93	61	81	39	81	41	98	52	99	57	96	55
3	.....	.....	72	31	87	40	84	34	100	59	94	63	79	39	83	40	96	52	98	63	97	54
4	.....	.....	71	34	83	40	82	34	101	60	93	65	79	44	80	41	93	59	98	65	94	59
5	.....	.....	70	34	82	42	82	36	100	61	95	65	76	45	81	40	94	53	96	63	95	58
6	.....	.....	71	33	82	42	84	36	101	59	93	66	76	44	80	41	94	56	98	65	93	58
7	.....	.....	73	35	87	41	82	36	101	63	96	66	82	44	75	46	96	58	100	66	94	58
8	.....	.....	74	34	86	48	84	38	103	62	98	67	81	44	76	45	98	56	101	64	97	57
9	.....	.....	69	35	84	40	84	36	98	58	95	67	78	41	75	44	95	56	88	62	86	59
10	.....	.....	57	40	78	37	82	36	95	55	80	60	62	41	74	49	90	53	82	57	77	53
11	.....	.....	66	28	80	38	80	38	105	50	88	55	71	35	70	31	88	49	92	55	86	51
12	.....	.....	72	33	83	43	82	36	108	59	94	59	79	43	75	40	93	49	98	60	92	61
13	.....	.....	77	36	89	43	78	38	108	60	97	63	87	46	82	43	96	55	100	59	100	58
14	.....	.....	76	37	90	45	76	40	109	61	99	66	81	44	83	45	96	57	102	59	100	59
15	.....	.....	78	39	92	52	78	38	110	63	97	71	85	46	86	52	97	61	101	60	94	66
16	.....	.....	78	42	90	52	80	39	110	60	98	72	82	50	85	55	97	65	100	68	101	62
17	.....	.....	76	51	81	52	78	40	108	61	99	74	84	55	75	51	97	65	102	60	100	63
18	.....	.....	76	41	90	52	78	38	105	60	101	72	88	47	80	46	101	66	105	62	102	64
19	.....	.....	78	41	91	49	76	38	106	60	102	72	87	50	85	56	102	64	106	68	101	58
20	.....	.....	82	41	92	52	80	40	108	60	105	73	89	48	86	52	105	65	109	68	104	56
21	.....	.....	79	45	90	51	82	42	108	60	105	78	90	49	82	53	99	74	110	67	105	56
22	.....	.....	79	46	93	49	84	46	108	60	103	78	89	56	79	46	100	68	107	67	105	60
23	.....	.....	75	45	88	44	86	46	107	60	100	74	83	60	82	45	98	70	104	68	99	70
24	.....	.....	74	42	85	51	82	46	111	60	98	69	82	50	82	50	98	64	101	70	96	66
25	.....	.....	73	54	86	47	84	42	111	69	100	71	80	58	81	57	99	65	101	72	95	67
26	.....	.....	72	51	87	48	86	42	110	68	96	69	77	55	82	54	97	62	94	67	91	70
27	.....	.....	70	51	89	48	86	42	97	59	94	68	76	50	85	50	97	60	92	68	89	65
28	.....	.....	70	43	85	44	84	40	103	62	89	67	78	43	81	55	94	63	95	64	90	57
29	.....	.....	77	30	90	41	86	40	106	60	98	59	85	36	81	39	97	61	103	60	94	57
30	.....	.....	82	31	93	46	88	40	107	60	101	64	93	43	87	38	101	58	109	63	105	56
Means	.....	.....	73.8	38.8	86.9	45.2	82.2	38.8	104.8	60.2	96.6	67.2	81.2	46.2	80.7	46.1	96.8	59.6	99.6	63.5	95.8	59.5

a, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL SUMMARY.

In the Great Basin this month was the wettest June on record. It is certain that local amounts at many places exceeded that of any previous June since 1874. The cause was the presence of low pressure areas over the Great Basin, one from June 7th to June 10th, and another from June 23d to June 29th. The rainfall caused by the latter storm was the heavier, and, as usual in summer, some localities received much more moisture than others. The rains were slightly unfavorable in irrigated districts and resulted in some damage; but were favorable to dry-farming sections, and greatly improved the ranges. There was a large number of thunderstorms; some fatalities occurred due to lightning, and damage by hail was also sustained. Some stations in the mountains and a few in the agricultural districts reported snow which soon disappeared. The temperature for the district averaged below normal, and was lower than that of June last year.

TEMPERATURE.

The mean temperature for the district was 61.5°, or 1.9° below normal, and varied from 49.3° at Tahoe, Cal., to 79.4° at Jean, Nev. The highest means occurred in the more level portions of the Utah area and in the southern portion of the Nevada area; while the lowest means occurred in the Wyoming area and in the mountainous portions of the Utah area and in parts of the Oregon and Nevada areas. Excesses above the normal temperature occurred in the Wyoming area and at widely scattered stations in the portions of other States in this district, but for the most part they were small. The temperature was generally deficient in the Utah area south of Great Salt Lake, and in central and western Nevada. The greatest deficiency was 8.1° at Kelton, Utah, whose mean was 61.2°; the greatest excess was 2.9° at Burns, Oreg., whose mean was 60.4°.

During the first eight days of the month the weather was warm, especially the afternoons, and many stations reported their maximum temperatures during this period. Another warm wave occurred just prior the second general storm of the month, from the 20th to the 23d inclusive. The highest temperatures that occurred in the various areas of the several States in this district were as follows: 89° at Border, Wyo., on the 22d; 92° at Grace, Idaho, on the 1st; 110° at Midvale, Utah, on the 22d; 90° at Burns, Oreg., on the 1st; 80° at Bridgeport, Cal., on the 17th; and 106° at Jean, Nev., on the 30th.

From the 10th to the 12th was, in general, the coolest portion of the month, and most of the stations reported their lowest temperatures during this period, although a few stations reported their lowest from the 27th to the 30th. Killing frosts occurred on the morning of the 29th at Beaver and Panguitch, Utah, and light frosts were observed at a few other places in Utah but no damage was mentioned in the reports. The lowest temperatures were: 31° at Cokeville, Wyo., on the 30th; 29° at Paris, Idaho, on the 1st; 23° at Soldiers Summit on the 11th, and at Woodruff on the 14th and 30th, both in Utah; 28° at Tecoma, Nev., on the 13th; 23° at Cliff, Oreg., on the 20th, and 27° at Tahoe, Cal., on the 20th and other dates.

PRECIPITATION.

The precipitation for the district averaged 1.99 inches, or 1.39 inches above normal. This unusual rainfall was well distributed throughout the district, but the heavier amounts fell in the northern portion of the Utah and Nevada areas and in the Wyoming area. In the Utah and Wyoming areas the monthly amounts were 3 or 4 times the average of all past records, and greatly exceeded the greatest previous monthly averages for June. All present June records for many stations in the district were broken, but especially in the middle and northern counties of the Utah area and at Elko, Nev., at which place 7 times the normal amount was recorded.

The greatest local monthly amount was 5.02 inches at Park Valley, Utah; the least was a trace at Jean, Nev. The largest 24-hour amount was 2.30 inches at Marysvale, Utah, which is more than 7 times the normal June rainfall.

Excepting the California area, there were two generally rainy periods during the month. The first extended from the 5th to the 12th, and the second from the 22d to the 29th. In the California area rain fell from the 1st to the 10th, and in the eastern portion of the district there were many light showers on the 17th and 18th.

MISCELLANEOUS PHENOMENA.

The average number of clear days for the district was 11; partly cloudy days, 10; cloudy days, 9; and rainy days, 8.

Foggy mornings were occasionally reported during the rainy period at a few places in the mountains of Utah.

The observer at Ogden, Utah, reported that a boy of twelve was killed by lightning on the 23d, also two cows and a horse.

A cloudburst of nearly as great proportions as that of last summer, swept down the canyon at Seven Troughs and Mazuma, Nev., on the 2d of June. No damage was done as the homes are now erected on higher ground.

At Mill City, Nev., a storm, which from the reports must have been a tornado, occurred. It lifted a roof weighted with many tons of gravel from Peter Organ's store and carried it in fragments across the desert.

A dispatch from Elko, Nev., reports the killing of a teamster by lightning, and the four mules which he was driving. A man standing 100 feet from the scene of the accident was stunned as were two mules which were being led behind the wagon.

TABLE 1.—*Climatological data for June, 1913. District No. 10, Great Basin.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.			Prevailing wind direction	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
Wyoming.																			
Border	Lincoln	6,085	11	56.6	+ 1.2	89	22	34	11	51	4.97	+ 3.59	1.60	0.0	14	7	6	17	w.	S. W. Condron.
Cokeville	do	6,204	3	57.0	.....	87	3	31	30	52	3.63	.....	0.94	0.0	13	19	4	7	w.	E. J. Tuckett.
Evanston	Uinta	6,860	17	55.0	+ 0.7	79	22†	32	11†	43	3.37	+ 2.27	0.92	0.0	12	12	14	4	sw.	Frank Tucker.
Idaho.																			
Geneva	Bear Lake	6,171	4	.....	.....	.....	.....	.....	.....	.....	1.23	.....	0.62	0	4	20	6	4	.....	F. W. Boehme.
Grace	Bannock	5,400	6	62.4	.....	92	1†	39	29	52	.....	.....	0.40	0	.....	9	6	15	nw.	E. W. Joy.
Paris	Bear Lake	5,946	18	55.4	− 0.3	82	16†	29	1	49	3.42	+ 2.56	0.87	0	8	7	18	5	w.	John Norton.
Weston	Franklin	4,460	14	60.9	+ 0.3	88	22	39	30	46	2.95	+ 1.85	0.63	0	12	13	6	11	sw.	Wm. T. Chatterton.
Utah.																			
Alpine	Utah	4,900	14	.....	.....	.....	.....	.....	.....	.....	1.71	+ 1.06	0.42	0	7	14	5	11	.....	T. F. Carlisle.
Beaver	Beaver	6,000	9	59.9	.....	102	21	26	29	62	1.30	.....	0.60	0	7	10	10	10	sw.	Henry Baker.
Black Rock	Millard	4,872	9	59.5	.....	92	21	25	8	53	0.55	.....	0.31	0	3	17	5	8	.....	W. D. Livingston.
Brigham City	Boxelder	4,315	2	67.4a	.....	105	20	45	10	48	3.02	.....	0.46	0	9	.....	.....	.....	.....	Nephi M. Valentine.
Burrville	Sevier	6,800	2	55.3	.....	81	22	31	11	45	2.34	.....	1.50	0	10	.....	.....	.....	.....	F. R. Curtis.
Castle Rock	Summit	6,244	8	.....	.....	.....	.....	.....	.....	.....	3.21	.....	1.00	0	12	14	8	8	.....	David Moore.
Cedar City	Iron	5,750	8	65.2e	.....	85	20†	39	29	36	0.70	.....	0.22	0	6	14	9	7	sw.	Parley Dalley.
Center	Tooele	4,250	3	61.5	.....	92	20†	34	12	52	1.49	.....	0.47	0	7	10	11	9	s.	L. C. Peterson.
Clarkston	Cache	5,930	2	.....	.....	.....	.....	.....	.....	.....	3.00	.....	0.60	0	8	10	10	10	.....	W. J. Griffiths.
Corinne	Boxelder	4,240	43	71.9	+ 1.4	92	19	43	13	38	1.46	+ 0.89	0.50	0	5	15	3	12	.....	A. C. Murphy.
Deseret	Millard	4,541	18	64.8	− 0.3	92	21e	38	9†	50	0.97	+ 0.60	0.30	0	6	13	5	12	s.	S. W. Western.
Elberta	Utah	4,650	11	67.4	− 0.2	94	21†	41	11	44	1.12	+ 0.77	0.26	0	8	15	8	7	s.	D. C. Walkey.
Enterprise	Washington	5,750	7	.....	.....	.....	.....	.....	.....	.....	0.14	.....	0.08	0	2	.....	.....	.....	.....	Jas. E. Hall.
Erekson	Tooele	4,850	1	.....	.....	.....	.....	.....	.....	.....	1.47	.....	0.56	0	6	.....	.....	.....	.....	N. W. Erekson.
Farmington	Davis	4,267	12	66.5	+ 2.2	93	16	42	11	49	2.30	+ 1.44	0.60	0	8	17	5	8	sw.	Chas. Boylin.
Fillmore	Millard	5,100	21	67.4	− 6.3	97	21	42	12	49	0.75	+ 0.22	0.31	0	8	.....	.....	.....	.....	J. J. Starley.
Garland	Boxelder	4,248	1	64.8l	.....	93l	1	45l	12	42l	2.35	.....	0.74	0	10	1	24	5	s.	Heber C. Cutler.
Garrison	Millard	4,850	9	61.6b	.....	89	22	36	25†	43	0.45	.....	0.25	0	2	9b	9b	10b	s.	E. M. Smith.
Government Creek	Tooele	5,277	12	63.3	+ 0.2	90	22	38	11	42	1.85	+ 1.23	0.41	0	10	17	5	8	s.	Walter James.
Granger	Salt Lake	4,560	1	65.0e	.....	90	22	46	12†	42	1.02	.....	.....	0	4	.....	.....	.....	.....	Geo. E. Greene.
Grantsville	Tooele	4,220	6	.....	.....	.....	.....	.....	.....	.....	1.88	.....	0.52	0	8	9	17	4	sw.	Monto Barrus.
Grouse Creek	Boxelder	5,148	3	.....	.....	.....	.....	.....	.....	.....	4.52	.....	1.15	0.4	14	2	13	15	sw.	Philip Paskett.
Heber	Wasatch	5,593	20	58.9	− 0.3	89	5†	28	11	59	2.24	+ 1.71	0.45	0	9	12	8	10	s.	John Crook.
Henefer	Summit	5,301	13	58.7	+ 0.4	86	2†	31	11	50	4.10	+ 3.41	1.05	0	12	9	9	12	w.	William Brewer.
Hooper	Weber	4,436	2	.....	.....	.....	.....	.....	.....	.....	5.00	.....	2.00	0	7	.....	.....	.....	.....	T. M. Jones, jr.
Ibapah	Tooele	7,500	8	60.0	.....	89	21	36	21	53	1.30	.....	0.55	0	10	8	17	5	s.	W. M. Chastain.
Ibex	Millard	5,250	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John J. Watson.
Iosepa	Tooele	4,356	2	66.9	.....	94	22	40	12	47	1.07	.....	0.25	0	6	3	9	18	.....	Geo. K. Hubbell.
Joy	Juab	5,000	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss Gladys Mikesell.
Junction	Piute	6,000	1	.....	.....	.....	.....	.....	.....	.....	0.26	.....	0.14	0	6	.....	.....	.....	.....	Joseph Jensen.
Kanosh	Millard	5,250	6	.....	.....	.....	.....	.....	.....	.....	0.85	.....	0.31	0	8	.....	.....	.....	.....	Geo. Crane.
Kelton	Boxelder	4,230	33	61.2	− 8.1	90	3†	32	11	47	2.32	+ 1.95	0.90	0	6	0	19	11	sw.	F. W. Klock.
Lemay	do	4,221	2	71.8	.....	90	18†	47	11	30	2.45	.....	1.00	0	6	8	9	13	w.	Agent S. P. Co.
Levan	Juab	5,010	23	63.8	+ 1.0	90	21	39	11	43	1.18	+ 0.63	0.21	0	11	13	4	13	sw.	Wm. Brown.
Logan	Cache	4,507	22	64.0	+ 0.8	87	20	43	11	37	2.09	+ 1.30	0.53	0	10	.....	.....	.....	.....	Utah Exp. Station.
Low	Tooele	4,602	2	70.3	.....	98	22	42	11	45	1.45	.....	0.60	0	4	23	3	4	.....	Agent W. P. Co.
Lucin	Boxelder	4,504	6	68.2	.....	91	16†	40	11	43	3.23	.....	0.86	0	7	13	10	7	n.	E. C. Puryear.
Manti	Sanpete	5,575	18	62.4	− 2.3	87	22	36	11	38	1.65	+ 1.28	0.61	0	9	4	7	19	.....	J. M. Anderson.
Maple Creek	Utah	4,890	2	.....	.....	.....	.....	.....	.....	.....	2.62	.....	1.14	0	11	12	10	8	.....	Lewis W. Gillilan.
Marion	Summit	6,400	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Jas. Woolstenhulme.
Marysvale	Piute	6,180	13	59.5	+ 0.0	87	21	31	29	49	4.70	+ 4.40	2.30	0	6	.....	.....	.....	.....	Lafe King.
Meadowville	Rich	6,200	12	59.0a	+ 3.0	84	23	36	11†	42	2.69	+ 1.83	0.75	0	10	12	3	15	s.	J. S. Moffat.
Midlake	Boxelder	4,235	2	68.6	.....	82	19†	49	11	22	1.30	.....	0.50	0	6	11	16	3	.....	Mrs. S. M. Gibson.
Midvale	Salt Lake	4,365	1	70.6	.....	110	22	41	10	57	2.35	.....	0.84	0	10	5	16	9	s.	C. McGhie.
Milford	Beaver	4,962	5	56.3	.....	88	30	30	10	48	0.32	.....	0.10	0	5	15	0	15	sw.	F. J. Bandreau.
Mills	Juab	4,911	1	.....	.....	.....	.....	.....	.....	.....	1.34	.....	0.29	0	10	.....	.....	.....	.....	Geo. McCune.
Millville	Cache	4,848	18	.....	.....	.....	.....	.....	.....	.....	2.24	+ 1.42	0.36	0	13	8	14	8	se.	Fred Yeates.
Minersville	Beaver	5,070	11	.....	.....	.....	.....	.....	.....	.....	0.34	.....	0.10	0	5	13	10	7	sw.	Fred R. Pryor.
Modena	Iron	5,479	12	61.8	− 1.4	87	21	39	1	46	0.44	+ 0.04	0.13	0.5	7	15	11	4	sw.	U. S. Weather Bureau.
Morgan	Morgan	5,068	8	61.2e	.....	90	22	35	15	46	3.42	.....	0.80	0	12	.....	.....	.....	.....	E. O. Kingston.
Moroni	Sanpete	5,519	5	61.0	.....	84	22	35	11	36	1.95	.....	0.53	0	8	9	8	13	sw.	B. F. Eliason.
Mosida	Utah	4,510	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	L. B. Curtis.
Nephi (near)	Juab	5,119	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Exp. Station.
New Castle	Iron	5,150	1	.....	.....	.....	.....	.....	.....	.....	0.04	.....	0.04	0	1	.....	.....	.....	.....	T. W. Jones.
Oak City	Millard	4,900	6	66.4	.....	92	22	42	12	41	1.28	.....	0.39	0	9	8	13	9	sw.	Peter Nielson.
Ogden	Weber	4,310	42	64.7	− 6.7	88	16	40	11	40	3.62	+ 2.94	0.64	0	9	11	5	14	s.	A. Van de Graaff.
Panguitch	Garfield	6,560	1	55.6	.....	85	21	26	13	52	0.35	.....	0.25	0	2	18	9	3	s.	Harry L. Stremble.
Park City	Summit	7,000	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Gertrude Evans.
Park Valley	Boxelder	5,200	2	.....	.....	.....	.....	.....	.....	.....	5.02	.....	1.30	0	10	10	10	10	sw.	C. W. Goodliffe.
Parowan	Iron	5,970	22	63.4	− 0.7	87	21	39	29	42	0.22	+ 0.03	0.08	0	3	17	5	8	.....	Alex. Matheson.
Payson	Utah	4,637	9	.....	.....	.....	.....	.....	.....	.....	1.70	.....	0.30	0	8	8	14	8	sw.	D. L. Coombs.
Pelican Point	do	4,600	1	.....	.....	.....	.....	.....	.....	.....	1.35	.....	0.70	0	4	20	7	3	.....	B. M. Mendenhall.
Pine Cliff Ranch	Summit	8,250	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	L. E. Leavitt.
Pinto	Washington	5,907	15	56.6	− 2.7	84	20†	30	29	51	0.34	+ 0.12	0.14	0	4	15	6	9	s.	J. H. Harrison.
Plentiful	Tooele	4,262	0	.....	.....	.....	.....	.....	.....	.....	1.66	.....	0.45	0	6	.....	.....	.....	.....	C. L. Drumm.
Promontory	Boxelder	4,913	38	.....	.....	.....	.....	.....	.....	.....	1.77	+ 1.28	0.65	0	6	.....	.....	.....	.....	F. C. Houghton.
Provo	Utah	4,532	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. J. Hughes.
Randolph	Rich	6,442	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Wm. Rex.
Revier	Salt Lake	5,066	2	.....	.....	.....	.....	.....	.....	.....	2.53	.....	0.75	0	11	.....	.....	.....	.....	E. L. Terry.
Richfield	Sevier	5,350	19	64.0e	+ 0.4	89	21†	38	11	47	0.96	+ 0.63	0.35	0	6	.....	.....	.....	.....	P. A. Westman.
Richmond	Cache	4,529	1	.....	.....	.....	.....	.....	.....	.....	3.50	.....	0.70	0	14	3	21	6	.....	J. R. Thompson.
Sahara	Iron	5,209	0	63.1	.....	92	21	38	1†	48	0.38	.....	0.18	0	4	20	7	3	sw.	Earl Markwith.
Saltair	Salt Lake	4,220	9	67.8	.....	87	16†	50	11	28	2.37	.....	0.57	0	12	.....	.....	.....	.....	E. J. Bench.
Salt Lake City	do	4,360	39	67.4	− 0.8	90	22	47	12	32	3.37	+ 2.60	0.88	0	13	16	5	9	s.	U. S. Weather Bureau.
Scipio	Millard	5,260	18	62.4	− 0.9	89	21†	37	1	49	1.39	+ 1.02	0.30	0	11	8	9	13	sw.	Thomas Memmott.
Showell	Boxelder	4,650	1	61.8	.....	87	1†	39	13	46	3.46	.....	1.00	0	7	10	20	0	.....	Richard Ilgner.
Silver City	Juab	6,127	3	.....	.....	.....	.....	.....	.....	.....	1.43	.....	0.48	0	8	.....	.....	.....	.....	J. L. Stark.
Smyths	Beaver	4,900	1	.....	.....	.....	.....	.....	.....	.....	0.40	.....	0.35	0	4	.....	.....	.....	.....	V. Waddoups.
Soldier Summit	Utah	7,454	12	52.3	− 1.9	81	21	23	11	49	1.72	+ 1.53	0.58	T.	5	9	12	9	.....	Geo. A. Boyd.
Spanish Fork	do	4,585	4	63.2	.....	92	22	31	1	56	1.72	.....	0.39	0	13	9	11	10	.....	Reclamation Service.
Springvale	Juab	.....	.....	63.2	.....	91	22	36	1†	51	1.15	.....	0.50	0	6	19	3	8	.....	James Coleman.
Strawb'ry Tun'l (west)	Utah	7,500	5	55.8	.....	81	1†	27	11	41	2.84	.....	0.69	0	9	12	7	11	.....	Reclamation Service.
Thistle	do	5,075	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John Thorgierson.

TABLE 1.—*Climatological data for June, 1913. District No. 10, Great Basin*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Utah—Continued.																				
Tooele	Tooele	4,900	17	64.2	− 1.4	89	22	42	11†	35	3.34	+ 2.67	1.22	0	8	2	6	22	s.	E. A. Bonelli.
Utah Lake P. S	Utah	4,500	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. A. Knight.
Vernon	Tooele	5,500	2	.....	.....	.....	.....	.....	.....	.....	2.43	.....	0.66	0	8	9	17	4	sw.	Glynn Bennion.
Wendover	do	4,237	1	72.7	.....	93	2†	52	26	31	1.69	.....	0.58	0	10	.....	.....	.....	.....	J. S. Cooper.
Whiskey Creek	Millard	4,850	2	.....	.....	.....	.....	.....	.....	.....	0.95	.....	0.50	0	1	.....	.....	.....	.....	George Stevens.
Winder	Garfield	8,000	0	.....	.....	.....	.....	.....	.....	.....	0.39	.....	0.17	0	3	.....	.....	.....	.....	Rollo Adair.
Woodruff	Rich	6,500	10	50.8[b]	− 7.7	83	23	23	14†	58	6.12	+ 5.64	1.15	0	14	7[b]	10[b]	11[b]	sw.	A. L. Eastman.
Nevada.																				
Austin	Lander	6,594	24	54.8	− 5.6	81	20	30	3	40	2.86	+ 2.23	0.75	0	8	17	0	13	se.	F. O. Booe.
Battle Mountain	do	4,843	42	62.0	− 4.8	90	3†	39	11	47	2.53	+ 2.06	0.64	0	9	16	5	9	se.	Southern Pacific Co.
Beowawe	Eureka	4,905	42	61.6	− 6.4	93	21	30	7	53	3.28	+ 2.87	0.85	0	9	.....	.....	.....	.....	Do.
Carlin	Elko	5,232	42	60.2[b]	− 2.6	92[b]	21	34[b]	19	53[b]	2.66	+ 2.25	0.80	0	5	10	9	11	.....	Do.
Cherry Creek	White Pine	6,450	5	59.2	.....	86	21	37	11	43	2.92	.....	0.78	0	11	14	6	10	w.	J. H. Leishman.
Clover Valley	Elko	6,000	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. F. Wiseman.
Columbia	Esmeralda	5,750	6	61.8	.....	88	21	37	10	43	1.84	.....	1.41	0	7	13	14	3	se.	A. Booth.
Dry Farm	Elko	5,600	1	57.8	.....	81	21	36	5	41	2.76	.....	1.01	0	7	.....	.....	.....	.....	Walfrid Sohlman.
Elko	do	5,432	42	55.2	− 7.9	87	21	29	20	56	3.98	+ 3.46	1.20	0	13	13	0	17	.....	Western Pacific Co.
Eureka	Eureka	6,500	15	58.2	− 2.3	85	21	34	27†	41	3.79	+ 3.03	1.42	0	10	7	9	14	n.	Clay Simms.
Fallon	Churchill	3,965	19	63.6	− 1.0	88	21	39	20	43	0.99	+ 0.78	0.29	0	12	15	7	8	w.	U. S. Experiment Station
Fernley	Lyon	4,200	40	63.9	− 2.9	89	30	40	20	44	1.25	+ 1.06	0.40	0	9	9	14	7	w.	Mrs. G. A. Steele.
Gardnerville	Douglas	4,830	22	59.4	− 2.2	80	3†	34	20†	41	0.84	+ 0.62	0.41	0	4	14	5	11	sw.	Forest Service.
Gerlach	Washoe	3,931	0	59.8[f]	.....	95	3	30[k]	29	59[k]	1.60	.....	0.70	0	4	.....	.....	.....	nw.	Western Pacific Co.
Geyser	Lincoln	6,055	9	60.4	.....	90	3	28	2	60	0.50	.....	0.38	0	2	10	11	9	s.	Mrs. J. F. Wambolt.
Glenbrook	Douglas	6,240	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. C. Henningsen.
Golconda	Humboldt	4,697	34	64.7	− 2.6	89	5†	40	19†	43	2.82	+ 2.31	1.00	0	10	8	9	13	w.	Southern Pacific Co.
Halleck	Elko	5,631	20	58.6[e]	− 3.1	94[e]	17	33[e]	19	44[e]	.....	.....	.....	0	.....	.....	.....	.....	s.	Do.
Jean	Clark	2,074	5	79.4	.....	106	30	53	3	40	T.	.....	T.	0	0	16	13	1	ne.	Salt Lake Route.
Lahontan	Churchill	4,200	1	66.2	.....	89	3†	42	26	36	1.37	.....	0.37	0	8	10	17	3	w.	U. S. Reclamation Service
Lewers Ranch	Washoe	5,500	25	57.7	− 2.4	80	20	33	27†	41	1.52	+ 1.11	0.85	0	4	6	16	8	.....	Ross Lewers.
Lida	Esmeralda	6,037	0	59.6	.....	81	21	34	10	30	2.58	.....	1.60	T.	6	12	18	0	nw.	L. F. Detwiler.
Lovelock	Humboldt	3,977	19	62.4	− 5.4	87	3†	40	21†	47	1.36	+ 1.15	0.45	0	8	11	7	12	sw.	A. P. Tilford.
McDermit	do	4,700	23	58.8	− 7.8	84	1†	38	20	45	3.89	+ 3.21	1.33	0	9	8	8	14	sw.	Scott Sterling.
McGill	White Pine	6,338	22	60.0	− 0.3	86	21	35	29	40	1.48	+ 1.08	0.68	0	9	12	7	11	s.	R. E. Middagh.
Metropolis	Elko	.....	0	58.0	.....	87	4	35	20	46	3.32	.....	0.76	0	10	.....	.....	.....	.....	O. W. Lloyd.
Millett	Nye	6,002	5	59.4	.....	87	21	36	27	47	0.93	.....	0.45	0	3	9	10	11	s.	Fred J. Jones.
Mina	Mineral	4,600	6	64.5	.....	90	21	41	27	41	0.98	.....	0.35	0	3	17	0	13	.....	Southern Pacific Co.
Oasis Ranch	Esmeralda	5,106	0	63.2	.....	92	22	37	28	47	0.76	.....	0.48	0	7	13	11	6	nw.	A. S. Patterson.
Potts	Nye	6,990	20	54.4	−10.1	84	21	30	1	42	3.50	+ 3.24	2.00	0	5	4	2	24	s.	Miss Mamie Potts.
Quinn River Ranch	Humboldt	4,850	11	60.6[e]	+ 2.2	86[e]	2	30[e]	20	50[e]	1.74	+ 1.30	0.51	0	10	.....	.....	.....	sw.	F. M. Payne.
Rebel Creek	do	.....	1	60.2	.....	85	2†	38	20	42	3.09	.....	0.83	0	13	9	10	11	sw	E. J. Hyatt.
Reno	Washoe	4,532	42	60.5	− 0.5	83	3	37	20	42	0.74	+ 0.50	0.56	0	7	11	12	7	w.	U. S. Weather Bureau.
Soda Lake	Churchill	4,534	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Reclamation Service.
Tecoma	Elko	4,812	35	59.8	− 4.0	90	4†	28	13	58	2.49	+ 1.95	0.77	0	9	6	13	11	se.	Southern Pacific Co.
Tonopah	Nye	6,090	8	61.0	.....	84	21	34	9	32	0.79	.....	0.55	0	7	11	17	2	w.	U. S. Weather Bureau
Wells	Elko	5,631	41	58.8	− 3.8	85	14†	32	17	51	2.75	+ 2.28	0.78	0	8	2	16	12	.....	Southern Pacific Co.
Winnemucca	Humboldt	4,432	34	61.6	− 1.7	87	2	40	15	45	2.14	+ 1.50	1.15	0	13	10	11	9	sw.	U. S. Weather Bureau.
Oregon.																				
Burns	Harney	4,157	22	60.4	+ 2.9	90	1	31	19	48	2.93	+ 2.22	0.87	0	9	2	18	10	sw.	J. C. Welcome, r.
Cliff	Lake	4,300	6	54.2	.....	84	1	23	20	50	3.61	.....	0.84	0	11	2	17	11	nw.	John C. Green.
Paisley	do	4,209	10	57.3	− 1.4	84	6	35	20	39	1.95	.....	0.50	0	9	6	17	7	n&sw.	C. M. Sain.
Silver Lake	do	4,700	16	55.8	+ 0.2	87	1	27	20	48	1.69	+ 0.70	0.62	0	9	8	20	2	sw.	G. W. Marvin.
California.																				
Bridgeport	Mono	6,500	0	52.8	.....	80	17	28	28	46	1.30	.....	0.84	0	5	14	9	7	sw.	A. F. Scott.
Cathedral Park	Eldorado	6,400	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Carl Fluegge.
Tahoe	Placer	6,240	2	49.3	.....	74	30	27	20†	43	0.99	.....	0.40	0	6	11	7	12	w.	R. M. Watson.
Truckee	Nevada	5,918	41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.

[a], [b], [e], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for June, 1913. District No. 10, Great Basin.*

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Wyoming.																														
Border	Bear					.46	T.	.20	.08	T.	.34	.14	.10					.60	.08					.19	T.	.15	.19	.80	1.60	.04		4.97
Cokeville	do					T.	.01	T.	T.		.43	.18	.11		T.			.24	.06	.02				.11	T.	.26	.47	.50	.94	.30	T.	3.63
Evanston	do					.37		.22				T.	.16					.02	.04	T.				.23	.04	.66	.92	.36	.32	.03		3.37
Idaho.																														
Geneva	Bear																										.62	.45	.10		.06	1.23
Grace	do						.20			.01	.20	.40	.20	.05				.05						.05	.25	.05		.30	.25	.25		
Paris	do									.10	.80	.15						.50								.20	.35	.45	.87			3.42
Westorn	do					.10					.20	.45	.63											.05	.08	.25	.22	.28	.40	.27	.02	2.95
Utah.																														
Alpine	G. S. Lake												.10						.25					.06		.42	.17	.36	.35			1.71
Beaver	Sevier Lake				.60		.04	.03			.13	.05	.25					.20										T.	T.			1.30
Black Rock	do										.07	.17	.31																			0.55
Brigham City	G. S. Lake										.34	.44	.16												.40	.30	.46	.42	.44	.06		3.02
Burrville	Sevier Lake	.01									.09	.06	1.50	.01			.05	.53							.02		.04	.03				2.34
Castle Rock	G. S. Lake						.04	.03				.05	.05					.07						.07	.06	.40	1.00	.40	1.00	.04		3.21
Cedar City	Desert										.05	.22	.03					.17										.11	.12			0.70
Center	do						T.				.11	.09					.05						T.	T.	T.	.25	.47	.10	.42			1.49
Clarkston	G. S. Lake								.20		.60	.50											.10		.40		.40	.50	.30			3.00
Corinne	do										.07													T.	.50		.31	.43	.15			1.46
Deseret	Sevier Lake									.12	.15	.10						.10										.20	.30			0.97
Elberta	G. S. Lake								T.		.12	.07					T.	.06	T.					T.	.11	.10	.23	.26	.17			1.12
Enterprise	Desert							.08																					.06			0.14
Erekson	do											.56						.07						.02		.46		.34	.02			1.47
Farmington	G. S. Lake												.05											.17	.13	.12	.43	.60	.45	.35			2.30
Fillmore	Sevier Lake						T.	T.			.02	.25						.02	T.					T.	.02	.09	.03	.01	.31				0.75
Garland	G. S. Lake										.60	.06	.12											.04	.20	.02	.74	.17	.22	.18			2.35
Garrison	Desert						T.	T.		T.	T.	.20	T.					T.					T.	T.	T.	T.		T.	.25				0.45
Government Creek	do					T.	.05	T.	T.		.11	.40	.02					T.						.03	T.	.41	.40	.10	.28	.05			1.85
Granger	G. S. Lake								T.				T.					T.						.17	.20	*	.65						1.02
Grantsville	do					.01						.45												.07	.25		.52	.11	.40	.07			1.88
Grouse Creek	Desert			T.	T.	.13	.04	.06			.20	1.15	T.	.20				T.	T.					.17	.34	.17	.78	.55	.62	.02	.09		4.52
Heber	G. S. Lake												.25					.40	.05					.20	.25	.40	.21		.45	.03			2.24
Henefer	do		.05				T.	T.	T.	T.	.05	.10	.15				T.	.28	T.					.32	.44	.64	.62	.27	1.05	.13			4.10
Hooper	do																.80							*	*	*	*	*	*	4.20			5.00
Ibapah	Desert						T.	.05	.02	.01		.18	.04					T.						.05	.14	.04	.55	T.	.22				1.30
Ibex	do																																
Iosepa	do					.15						.22							T.					.10		.20	.25	.15					1.07
Joy	do																																
Junction	Sevier Lake					T.	.02				.02	.03						.14						.01		.04							0.26
Kanosh	do						.03	.20					.31					.05						.02		.01	.04	.19					0.85
Kelton	G. S. Lake										T.	.10													.25	.15		.90	.60		.32		2.32
Lemay	Desert								T.	T.		.70		T.						.10				.08	T.		1.00	.45	.12				2.45
Levan	Sevier Lake					.03	.09				.15	.16						.21						.08	.12	.20	.04	.05	.05				1.18
Logan	G. S. Lake									.08	.53	.11	T.											.15	.23	.05	.31	.43	.17	.03	T.		2.09
Low	Desert																							.40		.25	.60	.20					1.45
Lucin	do			T.							.82							.10						.11	.23	T.	.85	.26	.86				3.23
Manti	Sevier Lake						T.				.10	.06	.34					.61	T.						.11	.12	.08	.04	.19	T.			1.65
Maple Creek	G. S. Lake				T.	T.	T.		T.	T.	.16	.03						.35	.26					.08	.09	.24	.19	.04	1.14	.04			2.62
Marion	do																																
Marysvale	Sevier Lake											.60	2.30					.90								.20	.60	.10					4.70
Meadowville	G. S. Lake				T.	T.		.15	T.		T.	.20	.15					.50	.20					.14	T.	.12	.15	.33	.75				2.69
Midlake	do						T.			T.	T.	.20	.10											.10	T.	T.	.50	.20	T.	.20			1.30
Midvale	do							.04	.01	T.	T.	.16						.05						.18	.33	.84	.34	.22	.18				2.35
Milford	Sevier Lake										.10	.02	.05												.10		.05						0.32
Millville	G. S. Lake						.08	.03	T.	.10	.14	.20	.15					T.						.14	.10	.20	.19	.36	.32	.23			2.24
Mills	Sevier Lake				T.	T.	T.		T.		.26	.29	.03				T.	.12	.08						.04	.12	.18	.04	.18				1.34
Minersville	do										.07	.10	.03					.09									.05						0.34
Modena	Desert						.02	.07			.07	.01					T.	.11						T.			.03		.13				0.44
Morgan	G. S. Lake					.12			.13			.09	.05					.08						.20	.19	.60	.80	.23	.73	.20			3.42
Moroni	Sevier Lake				T.	T.					.12	.23	.12				T.	.53						T.	T.	.23	.37	.07	.18				1.85
Mosida	G. S. Lake																																
Nephi (near)	do																																
New Castle	Desert																	.04															0.04
Oak City	Sevier Lake						.04				.25	.18						.05						.05		.16	.07	.09	.39				1.28
Ogden	G. S. Lake									T.	.31		.20					T.						.47	.64	.32	.22	.42	.45	.59			3.62
Panguitch	Sevier Lake																	.10									.25						0.35
Park City	G. S. Lake																																
Park Valley	Desert					.36					1.17								1.30				.30		.20	.33	.73	.19	.33		.11		5.02
Parowan	do					.06					.08							.08															0.22
Payson	G. S. Lake						T.	T.			.08	.30						.24							.30	.20	.18	.15	.25				1.70
Pelecan Point	do										.10								.25							.70			.30				1.35
Pine Cliff Ranch	do																																
Pinto	Desert										.01	.14					11										.08						0.34
Plentiful	G. S. Lake										.16												.45	.08	.25	.40			.32				1.66
Promontory	do								.20													.32			.20		.65	.30	.10				1.77
Provo	do																																
Randolph	do																																
Revier	do					.06	.02					.09						.06	.02						.22	.32	.75	.34	.31				2.53
Richfield	Sevier Lake											.35					.10	.13							.05	.28	.05						0.96
Richmond	G. S. Lake					T.		.04	.02	.04	.70	.30	.28	T.				T.						.14	.19	.06	.65	.38	.56	.13	.01		3.50
Sahara	Desert					T.	T.				T.	.18													.13		T.	.01	T.				0.28
Saltair	G. S. Lake							.02			.06	.01	.10					T.	.09					.22	.01	.57	.34	.32	.52	.11			2.37
Salt Lake City	do							.03	.08		.11	.23	.38				T.	.07						.15	.19	.83	.28	.47	.47	.08			3.37
Scipio	Desert				T.	T.	.03	T.	T.		.13	.10	.05				T.	.09	.17					T.	.07	.18	.21	.06	.30				1.39
Showell	do										.48	.58												.40	.10	.40	1.00	.50				3.46
Silver City	do																.02		.03					.12	.10	.07	.48	.33	.28				1.43
Smyths	do					.35		.01	T.			T.							.02			T.		.02	T.		T.	T	T.				0.40
Soldier Summit	G. S. Lake											T.						.20								.34	.36	.58	.24				1.72
Spanish Fork	do						.01	T.			.04	.02					.05	.39	.30					.11	.10	.27	.18	.04	.18	.03			1.72
Springvale	Sevier Lake											.50	.10					.10						.10		.20			.15				1.15
Strawberry Tunnel	G. S. Lake								T.		T.	T.	.15					.27	.05						.16	.60	.69	.57	.30	.05			2.84
Thistle	do																																
Tooele	do						.03	T.	T.	T.	T.	.25												.33	T.	.85	.31	.20	1.22	.15			3.34
Utah Lake P. S.	do																																
Vernon	Desert					T.	T.	T.	T.	T.	.15	.21						.04	T.					.03	T.	.28	.66	.51	.55	T.			2.43
Wendover	do						T.	T.	.05	.02	.10	.32											.02	.30	T.	.03	.58	.11	.16				1.69
Whiskey Creek	do																T.	T.							.50				T.	.45			0.95
Winder	Sevier Lake										.15		.07					.17																0.39
Woodruff	G. S. Lake					.40	.15	T.	.15	T.	T.	.42	.10					.10	.10	T.				.35	.10	.95	.95	1.15	1.00	T.	.20		6.12

TABLE 2.—*Daily precipitation for June, 1913. District No. 10*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Oregon.																																
Ana River	S. E. drainage	....	.42	....	....	....	....	.05	....	.28	....	....	....	....	....	....	....	T.	T.	....	....	....	T.	.05	.18	T.	.45	.71	....	T.	....	2.14
Bear Valley	do	....	....	....	....	....	....	....	....	.21	....	....	....	.04	....	....	....	....	....	....	....	....	1.12	....	.42	.27	....	.55	.43	....	.18	3.22
Burns	do	....	....	....	....	....	.04	....	....	.24	....	....	....	.04	....	....	....	....	....	.27	....	....	.49	....	.32	.03	.63	.87	....	....	....	2.93
Burns Mill	do	....	....	....	....	....	....	.07	.04	....	....	....	....	....	....	....	....	....	....	.20	....	.78	....	....	....	.27	.14	.55	1.21	....	....	3.26
Christmas Lake	do	.23	.08	T.	....	....	....	.20	.05	.77	....	....	T.	....	.01	....	T.	....	T.	.05	....	....	.37	.27	.16	....	.27	.81	.04	.04	....	3.35
Cliff	do	....	.49	.02	....	....	T.	.42	....	.18	....	....	....	....	....	....	....	....	.09	....	....	....	.58	.03	.15	....	.84	.75	.06	T.	....	3.61
Diamond	do	....	....	....	....	....	....	....	....	.38	....	....	....	....	....	....	....	....	....	....	....	....	.10	.36	.30	.10	.07	.48	.34	....	.04	2.17
Embody	do	....	.20	....	....	....	....	....	.10	.34	....	....	....	....	....	....	....	....	.02	.10	....	....	.28	T.	.19	....	.70	.62	....	....	....	2.55
Fort Rock	do	T.	.25	.06	....	....	....	....	.15	.30	....	....	T.	....	T.	....	T.	....	.10	T.	....	.25	....	.07	.16	.08	.26	.70	T.	.05	....	2.43
Paisley	do	....	....	....	....	....	....	.50	....	.20	.15	....	T.	....	....	....	T.	....	.12	T.	....	....	.05	....	.07	....	.15	.45	.26	....	....	1.95
Seneca	do	....	T.	....	....	....	....	T.	....	.33	....	....	....	....	T.	....	....	T.	T.	.13	....	T.	.03	.76	.43	.17	.11	1.02	.39	....	.31	3.68
Silver Lake	do	....	.03	....	....	....	....	.03	.08	.08	....	....	....	....	....	....	....	....	....	....	....	....	.25	....	.10	.02	.48	.62	....	....	....	1.69
Valley Falls	do	....	....	....	....	....	.28	....	....	.50	....	....	....	....	....	....	....	....	....	....	T.	....	....	....	.60	....	.50	.62	....	....	....	2.50
California.																																
Bijou	Truckee	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Boca	do	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Bridgeport	East Walker	T.	.84	.02	....	....	.02	....	....	T.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.31	.11	....	....	....	1.30
Cathedral Park	Truckee	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Deer Park	do	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Hobart Mills	do	.06	.02	....	.04	.30	.53	.03	*	.11	.01	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	1.13
Lundy	East Walker	....	....	....	T.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.35	....	....	....	T.	....	....	....	0.35
McKinney	Truckee	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Markleeville	East Carson	.20	....	.06	T.	.11	.04	....	T.	.14	....	....	....	....	....	....	....	....	T.	....	....	....	....	....	....	....	.08	....	....	....	....	0.63
Shields Ranch	East Walker	.10	T.	....	.03	.19	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.09	....	....	....	....	0.43
Silver Creek	East Carson	.20	.18	T.	T.	.15	.02	....	....	.17	....	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	.10	....	....	....	....	0.84
Tahoe	Truckee	....	....	.22	....	.40	.15	....	T.	....	.09	....	....	....	....	....	....	....	.05	....	....	....	T.	....	T.	....	....	.08	T.	....	....	0.99
Tallac	do	T.	T.	T.	.10	T.	.35	....	....	.10	T.	....	....	....	....	....	....	....	....	....	....	....	T.	T.	....	....	T.	....	....	....	....	0.55
Truckee	do	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Woodfords	West Carson	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Nevada.																																
Arthur	Humboldt	....	....	....	....	....	....	....	....	....	.50	.45	.30	....	....	....	....	....	....	....	....	....	....	.60	.20	.60	.25	.10	.30	....	....	3.30
Austin	Reese	....	....	....	....	....	....	.50	....	.10	.40	.15	....	....	....	....	....	....	....	....	....	....	....	.31	.02	....	.75	.63	....	....	....	2.86
Battle Mountain	Humboldt	....	....	....	.20	.30	....	.20	....	.19	.48	....	....	....	....	....	....	....	....	....	....	....	.64	....	.08	.32	.12	....	....	....	....	2.53
Beowawe	do	....	....	....	....	....	.20	.18	.26	.22	.46	T.	....	....	....	....	....	....	....	....	....	....	....	.42	T.	.85	....	.47	.22	....	....	3.28
Carlin	do	....	....	....	....	....	....	....	....	.75	....	....	....	....	....	....	....	....	....	....	....	....	....	.45	....	.80	.45	....	.21	....	....	2.66
Cherry Creek	do	....	....	.04	T.	....	.02	.06	....	....	.15	.78	.18	....	....	....	....	T.	T.	....	....	....	....	.10	....	....	.75	.06	.73	.05	....	2.92
Clover Valley	do	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Columbia	Desert	.01	T.	....	....	....	....	.07	.03	T.	.12	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.13	1.41	.07	....	....	1.84
Dry Farm	Humboldt	....	....	....	....	....	....	....	....	.10	.12	.89	....	....	....	....	....	....	....	....	....	....	....	.27	T.	....	.90	.07	.41	....	....	2.76
Elko	do	....	.10	....	.20	....	.10	.10	.10	....	1.20	.08	....	....	....	....	....	....	.10	....	....	....	....	.40	....	.40	.80	.20	.10	....	....	3.98
Eureka	do	....	....	....	....	.05	.03	.07	.03	....	.40	1.42	....	....	....	....	....	....	....	....	....	....	....	.04	....	....	.66	.67	.42	....	....	3.79
Fallon	Carson	.02	....	....	.01	.05	.10	....	.02	.29	.10	....	....	....	....	....	....	....	....	....	....	....	.01	.02	....	....	.29	.03	.05	....	....	0.99
Fernley	Truckee	.12	.18	T.	T.	.25	.15	....	....	.10	.10	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	T.	.20	.12	....	....	....	1.25
Gardnerville	Carson	.36	.05	.02	T.	.41	T.	....	....	T.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T.	....	....	....	....	0.84
Gerlach	Desert	....	....	....	....	....	....	....	....	.35	....	....	....	.10	....	....	....	....	....	....	....	....	....	.70	....	.45	T.	....	....	....	....	1.60
Geyser	Humboldt	T.	....	....	.12	....	....	T.	....	....	....	....	....	....	....	....	....	.38	....	....	....	....	....	....	....	....	....	....	....	....	....	0.50
Glenbrook	Truckee	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Golconda	Humboldt	....	....	....	.40	....	....	.20	....	.45	.65	....	....	....	....	....	....	....	....	....	....	....	1.00	.02	....	.01	.01	.08	....	....	....	2.82
Halleck	do	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Hylton	do	....	....	....	....	....	....	....	....	.28	*	.83	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	.88	....	....	....	....	2.04
Jean	Desert	....	....	....	T.	T.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T.
Lahontan	Carson	.11	....	....	.22	T.	.11	....	.06	.37	T.	....	....	....	....	....	....	....	....	....	....	....	.02	.12	....	T.	.36	....	....	....	....	1.37
Lewers Ranch	Truckee	....	....	.25	....	.85	....	.20	....	.22	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.52
Lida	Desert	.06	T.	T.	T.	T.	....	.02	.03	.46	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.60	.41	....	....	....	2.58
Lovelocks	Humboldt	....	....	....	....	.10	....	....	.15	.35	.96	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	.05	.45	.05	....	....	....	1.36
McDermit	do	....	....	....	....	1.33	.31	T.	.34	.23	....	....	....	....	....	....	....	....	....	....	....	....	....	.35	.52	.10	.68	.03	....	....	....	3.89
McGill	do	....	....	....	....	....	....	....	.02	....	.02	*	.51	....	....	....	....	....	....	....	....	....	....	.07	....	*	.68	....	.05	.13	....	1.48
Metropolis	do	....	....	....	....	....	....	....	....	....	*	*	1.32	....	....	....	....	....	....	....	....	....	....	*	*	*	*	*	*	2.00	....	3.32
Mill City	do	....	....	....	.23	.35	.05	.01	*	.39	.41	....	....	....	....	....	....	....	....	....	....	....	*	.11	....	T.	.12	T.	....	....	....	1.67
Millett	Reese	....	....	....	....	....	....	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.45	....	.23	....	....	0.93
Mina	Desert	....	....	....	....	....	....	....	....	.28	.35	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.35	....	....	....	....	0.98
North Fork	Humboldt	....	....	....	....	....	.18	.12	.11	.06	.44	.07	....	....	....	....	....	....	....	....	....	....	T.	.39	.16	.28	.30	.15	....	....	....	2.26
Oasis Ranch	Desert	.04	.06	T.	.02	....	T.	.03	....	T.	.48	....	....	....	....	....	....	....	....	....	....	....	T.	....	....	....	.02	.11	....	....	....	0.76
Potts	Reese	....	....	....	T.	.02	T.	....	.03	T.	....	2.00	....	....	....	....	....	....	....	....	....	....	....	....	T.	1.00	....	.45	T.	....	....	3.50
Quinn River Ranch	Humboldt	.01	....	.06	....	....	....	....	....	.15	.45	....	....	....	....	....	....	....	....	....	....	....	.18	.09	.51	.11	.05	.13	....	....	....	1.74
Rebel Creek	do	.03	T.	T.	.05	T.	T.	.03	.05	.27	.17	....	....	....	....	....	....	....	....	T.	....	....	.13	.72	.83	.08	.53	.07	.13	....	....	3.09
Reno	Truckee	.01	....	.04	.16	.44	T.	....	T.	.04	T.	....	....	....	....	....	....	....	....	....	....	....	....	.01	....	T.	.04	T.	....	....	....	0.74
Rose Creek	Humboldt	....	....	....	....	.12	.15	....	.10	.45	.19	....	....	....	....	....	....	....	....	....	....	....	.25	1.10	....	.19	.22	....	....	....	....	2.77
Smith	West Walker	.17	....	T.	....	....	T.	....	T.	.15	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.21	....	....	....	....	0.58
Soda Lake	Carson	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Spooners Ranch	Truckee	.14	.10	.05	T.	.50	.40	T.	....	....	T.	T.	....	T.	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	1.24
Sweetwater	East Walker	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Tecoma	Humboldt	....	....	....	....	....	.02	....	....	....	....	.70	....	....	....	....	....	....	....	....	....	....	....	.20	.08	.07	.70	.05	.65	.02	....	2.49
Tonopah	Desert	.01	....	....	....	.01	T.	....	....	.15	T.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	.28	.29	.02	....	....	0.79
Wabuska	Walker	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Wells	Humboldt	....	....	....	....	....	....	.04	....	.21	.78	.52	....	....	....	....	....	....	....	....	....	....	....	.20	....	.50	.25	.25	....	....	....	2.75
Willow Point	L. Humboldt	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Winnemucca	Humboldt	....	....	.01	.05	.04	.05	....	.01	.30	.01	....	....	....	....	....	....	....	....	....	....	....	.49	.66	.13	.20	.06	.13	T.	....	....	2.14

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for June, 1913. District No. 10, Great Basin.*

Date.	Burns, Oreg.		Nevada.																							
			Cherry Creek.		Elko.		Eureka.		Fallon.		Jean.		Lovelocks.		Millett.		Mina.		Quinn River Ranch.		Reno.		Tecoma.		Tonopah.		Winnemucca.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	90	42	74	41	68	32	73	40	75	47	97	60	76	45	73	40	68	43	83	42	72	45	82	31	70	49	79	43
2....	84	54	80	42	80	35	78	41	83	47	96	58	83	46	80	39	78	48	86	41	81	47	87	30	74	48	87	42
3....	87	50	71	50	70	37	75	43	85	51	93	53	87	52	80	40	79	50	85	50	83	52	85	30	75	52	87	50
4....	83	45	78	42	76	35	76	42	84	50	90	57	84	47	77	42	81	50	84	45	77	49	90	35	74	52	82	48
5....	85	49	80	45	72	37	75	46	82	54	92	57	84	49	76	45	81	49	80	52	76	54	81	41	71	52	80	49
6....	87	50	81	45	78	40	74	44	82	51	92	59	86	50	79	42	82	51	84	54	74	52	85	36	75	52	81	49
7....	86	40	72	43	67	34	72	48	84	54	93	58	84	48	70	45	82	52	83	52	76	47	86	34	72	52	81	51
8....	80	39	75	42	65	40	73	49	74	51	93	59	76	47	75	44	79	62	80	50	68	46	85	35	70	51	76	52
9....	76	42	63	50	72	41	66	48	61	46	94	59	65	43	70	45	76	42	64	40	58	45	82	40	63	34	60	44
10....	75	43	57	42	57	40	55	40	66	46	93	58	67	46	62	41	59	42	69	45	67	46	80	40	52	35	66	44
11....	77	40	50	37	44	33	51	38	76	49	95	59	77	46	72	44	72	44	78	44	78	49	75	39	66	44	75	51
12....	80	42	67	40	68	34	69	39	82	46	97	59	83	44	78	37	81	52	81	41	81	50	75	30	77	52	79	44
13....	75	42	79	45	74	38	78	52	85	49	97	59	84	46	85	45	79	51	79	52	74	54	80	28	80	58	80	50
14....	74	43	79	50	77	39	80	43	83	48	99	60	82	43	83	44	81	54	75	45	75	47	81	35	79	58	79	50
15....	76	42	82	46	72	34	80	50	84	46	99	60	83	45	82	42	89	54	79	33	76	44	88	40	77	57	81	40
16....	79	45	81	51	78	36	79	58	84	45	98	60	85	47	81	45	85	52	80	45	78	44	90	37	77	56	82	51
17....	80	44	78	50	77	40	80	52	87	50	99	59	85	49	83	50	81	49	.....	.....	78	47	85	34	77	56	84	53
18....	78	42	81	52	86	62	80	53	84	48	98	61	85	47	82	42	80	50	.....	.....	76	44	90	39	77	54	84	54
19....	74	31	82	49	83	40	79	53	80	52	99	61	79	46	80	47	82	49	.....	.....	66	48	89	40	78	54	75	49
20....	76	36	79	43	85	29	79	37	80	39	99	62	82	43	81	39	83	48	80	30	79	37	88	30	79	47	78	41
21....	80	40	86	47	87	32	85	44	88	45	100	63	87	40	87	40	90	49	81	34	79	48	90	36	84	57	83	42
22....	85	44	85	46	86	36	83	46	78	53	102	65	77	51	82	44	87	55	75	52	70	58	87	35	80	56	70	53
23....	80	44	71	52	74	39	70	45	75	53	102	65	72	52	76	50	87	56	68	48	71	57	90	40	75	53	67	50
24....	75	42	71	45	72	35	72	44	79	55	103	64	77	50	78	45	84	52	75	42	69	53	85	34	74	49	67	52
25....	74	39	70	52	75	40	68	42	74	46	101	63	71	50	75	44	77	49	74	44	66	46	85	34	67	47	66	45
26....	70	44	62	44	72	39	63	42	82	43	100	64	60	43	65	43	71	48	63	42	58	46	84	36	62	38	62	42
27....	67	44	58	42	67	37	60	34	67	41	100	67	66	40	58	36	59	41	65	44	64	41	82	35	51	38	64	45
28....	66	40	52	42	60	35	53	38	69	44	102	67	68	42	62	40	65	48	70	40	69	43	82	34	60	38	66	45
29....	68	43	68	38	67	32	67	34	78	43	104	69	84	43	73	38	68	49	76	37	79	43	80	36	72	47	74	44
30....	70	42	85	42	84	34	78	41	87	48	106	68	86	41	82	43	89	75	82	48	80	49	80	29	82	57	81	45
Mns..	77.9	42.8	73.2	45.2	73.1	37.2	72.3	44.2	79.3	48.0	97.7	61.1	78.8	46.0	76.2	42.7	78.5	50.5	77.0	44.1	73.3	47.7	84.5	35.1	72.3	49.8	75.9	47.3

Date.	Wyoming.				Weston, Idaho.		Utah.																			
	Border.		Evanston.				Black Rock.		Corinne.		Government Creek.		Marysvale.		Meadowville.		Modena.		Ogden.		Parowan.		Spanish Fork.		Salt Lake City.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	81	36	79	43	85	41	79	38	89	55	82	42	83	34	79	40	79	39	80	46	81	44	87	31	87	64
2.....	79	36	78	35	86	42	77	30	87	58	84	50	82	35	79	42	79	41	87	47	82	45	88	35	85	58
3.....	79	38	77	38	86	42	79	38	87	51	81	45	82	34	74	42	78	42	85	46	82	47	86	36	83	61
4.....	80	36	76	35	83	42	76	35	82	51	82	47	82	34	79	43	78	45	84	48	80	49	87	35	82	59
5.....	78	36	72	37	80	42	78	32	84	50	82	50	79	37	.....	.....	77	46	83	45	80	48	83	37	79	59
6.....	74	38	70	36	78	43	82	32	87	65	80	47	80	38	82	40	76	46	85	47	81	45	79	34	81	59
7.....	76	38	74	40	86	42	76	30	86	52	83	47	80	39	75	40	76	45	83	46	80	46	82	34	83	58
8.....	75	41	72	42	81	46	75	25	82	54	82	50	81	39	78	43	79	44	83	50	81	48	82	39	82	62
9.....	77	39	71	44	83	46	65	31	84	57	80	53	75	53	78	40	71	50	76	55	76	49	83	45	81	63
10.....	72	47	65	47	69	45	62	30	72	51	70	42	64	42	73	45	56	43	78	50	65	43	73	34	68	49
11.....	61	34	55	32	64	43	84	32	80	50	54	38	59	40	63	36	64	42	68	40	62	40	63	34	62	47
12.....	63	37	56	37	64	42	70	32	68	48	62	39	61	36	62	42	75	44	70	45	69	42	69	44	66	47
13.....	75	35	70	32	75	40	86	37	80	43	82	40	81	37	76	39	80	43	81	42	80	42	85	45	82	50
14.....	78	40	74	43	80	48	86	46	85	49	86	54	82	37	82	41	81	47	84	50	82	48	87	53	84	66
15.....	81	38	76	40	85	44	87	42	88	62	86	56	84	37	82	43	82	50	87	48	82	45	90	54	87	62
16.....	83	38	77	42	81	52	87	42	88	51	85	51	84	37	85	49	83	46	88	59	81	49	88	57	87	65
17.....	78	41	71	48	83	44	80	54	87	64	79	55	68	50	79	53	78	54	76	63	76	52	77	56	76	59
18.....	76	40	72	36	87	46	86	40	82	49	84	48	80	43	71	43	81	47	84	64	82	52	79	50	84	55
19.....	83	40	76	40	81	51	89	38	92	70	87	51	84	39	83	42	83	45	86	58	84	48	89	53	89	64
20.....	79	40	75	40	86	40	87	38	89	55	82	49	84	37	82	46	85	43	82	59	85	50	84	52	77	57
21.....	83	37	79	38	84	40	92	39	90	48	89	49	87	39	82	46	87	45	81	54	87	49	91	54	87	59
22.....	89	38	79	43	88	44	91	41	88	52	90	58	86	39	83	44	86	47	83	48	85	51	92	53	90	65
23.....	80	39	76	44	74	52	83	58	89	51	85	54	81	57	84	42	81	61	78	49	82	66	83	56	74	54
24.....	65	35	60	40	71	40	81	48	79	50	77	45	76	51	69	42	80	50	77	46	80	51	73	52	71	54
25.....	64	45	61	42	66	49	78	46	75	45	70	52	75	[a]55	65	45	73	56	69	47	77	56	74	54	71	53
26.....	62	45	62	43	62	49	78	50	70	48	66	50	74	51	66	46	72	53	64	50	79	55	75	53	66	51
27.....	63	47	63	46	69	47	77	47	68	45	72	48	71	54	67	50	71	50	70	50	76	49	72	54	71	55
28.....	58	45	61	43	63	50	70	46	72	49	63	44	70	51	63	43	64	46	66	53	71	46	70	50	62	49
29.....	60	42	58	37	61	47	77	32	75	46	69	44	72	31	64	42	75	39	75	57	78	39	71	47	68	49
30.....	70	35	65	35	74	39	88	35	77	45	80	45	81	36	72	36	87	41	79	47	85	43	81	46	80	51
Mean...	74.1	39.2	70.0	39.9	77.2	44.6	80.2	38.8	87.9	55.9	78.5	48.1	77.6	41.4	75.1	42.9	77.2	46.3	79.1	50.3	79.0	47.9	80.8	45.9	78.2	56.8

[a], [b], [c], indicate respectively 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 11, CALIFORNIA.

Prof. ALEXANDER G. MCADIE, District Editor.

GENERAL SUMMARY.

June, 1913, was the coolest June since 1897. The precipitation was above the average. On the whole the month was favorable for agriculture, although a heavier rainfall would have been beneficial. There were comparatively few periods of strong north wind, which was advantageous, for owing to the generally dry character of the season and the small supply of water the existence of such winds would have resulted in considerable loss. The snow in the mountains disappeared early, nearly two weeks earlier than during the preceding year, which itself was one of early disappearance. The supply of water is not abundant and the outlook for the long, dry summer is not favorable. In the mountains the season opened early, and passes not usually accessible until the middle of June were open for travel before the beginning of the month.

The month began with pressure distribution favorable for fair weather. There were, however, sporadic thunderstorms in the San Joaquin Valley and the Sierra foothills. A somewhat unsettled condition continued for 5 days and while there were no rains of consequence, there was considerable cloudiness with passing showers. From June 4th to 9th thunderstorms were frequent in the Sierra and eastward over the Great Basin. From the 10th to the 17th conditions were normal. Beginning with the 18th a well marked change in pressure distribution over the western half of the country took place. Unsettled weather prevailed on the Pacific slope, and there were light rains in northern California. This condition lasted for about 10 days. Light rains were frequent and there were no high afternoon temperatures. The winds were mostly south and the temperatures much below normal.

The month was without any feature of special interest.

TEMPERATURE.

The temperature for the State was 3° below the normal. The following table gives the mean temperature for California for each June during the time records have been kept:

Year.	Mean.	Departure.	Year.	Mean.	Departure.
	°F.	°F.		°F.	°F.
1897	69.8	+0.8	1906	66.7	−2.3
1898	71.3	+2.3	1907	66.1	−2.9
1899	71.5	+2.5	1908	66.0	−3.0
1900	71.4	+2.4	1909	68.1	−0.9
1901	70.5	+1.5	1910	67.3	−1.7
1902	70.2	+1.2	1911	66.7	−2.3
1903	70.9	+1.9	1912	68.0	−1.0
1904	71.1	+2.1	1913	65.8	−3.2
1905	67.5	−1.5			

The highest temperature recorded was 119° at Greenland Ranch on the 22d, which was 1° lower than the highest temperature recorded during the previous year at the same station. Greenland Ranch is located in Death Valley, and temperatures may reasonably be expected to reach as high a degree here as at any point in the United States. The lowest temperature was 22° at Yosemite on the 10th.

PRECIPITATION.

The average precipitation for California for June with departures from the normal is as follows:

Year.	Mean.	Departure.	Year.	Mean.	Departure.
	Inches.	Inches.		Inches.	Inches.
1897	0.46	+0.15	1906	1.05	+0.74
1898	.25	−.06	1907	1.02	+.71
1899	.57	+.26	1908	.17	−.14
1900	.19	−.12	1909	.19	−.12
1901	.01	−.30	1910	.05	−.26
1902	.10	−.20	1911	.15	−.16
1903	.07	−.24	1912	.49	+.18
1904	.04	−.27	1913	.58	+.27
1905	.07	−.24			

The greatest monthly precipitation was 7.44 inches at Tamarack, which was 4.64 inches greater than the heaviest monthly rainfall reported during June, 1912, and more than 6 inches greater than the heaviest monthly rainfall reported during June, 1911. At 34 stations there was no rainfall.

SNOWFALL IN THE MOUNTAINS.

The snow was unusually light during the month. The ground was bare at an elevation of 7,000 feet two weeks earlier than during the preceding June. There is very little snow left at the higher elevations, and the outlook for water from this source is poor.

The following table gives the total hours of sunshine and percentages of possible:

Stations.	Hours.	Per cent of possible.	Stations.	Hours.	Per cent of possible.
Eureka	220	49	Sacramento	374	84
Fresno	390	89	San Diego	238	55
Los Angeles	245	57	San Francisco	279	63
Mount Tamalpais	368	83	San Jose	349	79
Red Bluff	323	72	San Luis Obispo	288	66

NOTES ON THE RIVERS OF THE SACRAMENTO AND LOWER SAN JOAQUIN WATERSHEDS DURING THE MONTH OF JUNE, 1913.

By N. R. TAYLOR, Local Forecaster.

Sacramento watershed.—Rainfall along the immediate course of the Sacramento River and in parts of the Feather-Yuba watershed exceeded the normal for the month. It was relatively heavy during the second decade in some of the upper reaches of the Sacramento and resulted in a slight swell in this stream which was felt as far down as the mouth of the American.

From Kennett to Tehama the Sacramento showed little departure from the usual June stages. South of Colusa, however, the river averaged from 2 to over 6 feet below the normal for the month and was the lowest on record, except the extreme low-water stages of June, 1910.

The American River fell slowly but steadily during the entire month, with a range of over 3 feet between the highest on the 1st and the lowest on the 30th. It averaged nearly 2 feet below the usual June stage and only 0.7 of a foot above the previous lowest water for the month, which was in 1910.

At Oroville on the Feather and Marysville on the Yuba River the averages were 1.5 and 2.1 feet, respectively, below the June normal. Stages at both points were slightly above those of June, 1910.

Conditions now indicate that all streams in this watershed will be unusually low during the late summer and early fall; that the Sacramento River itself will reach unprecedentedly low stages.

Lower San Joaquin watershed.—The snow in the high ranges east of the San Joaquin Valley practically disappeared during the last decade of May, and the effect of snow water on the run-off of the mountain streams was barely noticeable even during the first warm days of June.

Excepting the Tuolumne, which rose over 2 feet during the 24 hours ending at 7 a. m. of the 27th, as a result of heavy local rains, all streams fell steadily during the greater part of the month and averaged much below the June normal. The extreme low-water stages will be reached much earlier than usual in all streams in the San Joaquin Valley.

NOTES ON STREAMS OF THE UPPER SAN JOAQUIN WATERSHED.

By JAMES H. GORDON, Observer.

The past month has been one of low water, with almost an entire absence of high stages. A rather scanty snow cover is largely responsible for this condition, but the moderate temperatures of the month contributed. For Firebaugh and Friant on the San Joaquin River the stages for June were the lowest in 7 years' record. Ten years' record for the Kings River shows but one year with lower flow, 1908, while the Merced River gave lower stages both in 1908 and 1910.

Low water in the Kings River, from which most of the irrigating canals of Fresno County draw their supply, has resulted in much litigation between the various water users. The loss in crops will not be nearly so severe as might be expected, for the past dry years have shown the need of a reliable water supply and ranchers generally have wells and pumping plants. The supply of ground water seems to be plentiful in spite of the two dry seasons.

RELATIVE HUMIDITY IN DEATH VALLEY.

By ALEXANDER G. MCADIE.

Hygrographic records from Greenland ranch, Death Valley, Cal., have been maintained for a year. The instrument, a Friez hygrograph, has been twice carefully checked at the Weather Bureau office, San Francisco. The readings are also under control at Greenland ranch by the use of a sling psychrometer. Mr. Fred Corkhill, superintendent at the ranch, formerly called Furnace Creek ranch, has given special attention to the keeping of these records, and Mr. W. L. Locke, of the Pacific Coast Borax Co., has from time to time studied the humidity records in connection with other climatic factors.

It may be stated that while humidities are low, as might be expected, there are periods when a high degree of saturation prevails. A notable instance of this was from the forenoon of October 2 until the forenoon of October 18, 1912, when during the night hours the relative humidity frequently exceeded 90 per cent, while during the midday and afternoon hours the humidity did not fall below 50 per cent during most of the period.

Taking the year's record as a whole it appears that the humidity is not much below that of the Great Valley of California and closely resembles conditions in the San Gabriel Valley. These records would appear to uphold the belief that the dreaded terrors of heat and dryness in Death Valley have been somewhat exaggerated; and that it is quite possible if proper care be taken in the matter of supplies and provision for physical comfort, to live and work in this section.

The highest temperature recorded in California during June, 1913, was 119° on the 22d at Greenland ranch. Mr. Locke states that the maxima during the month ranged from 105° to 119°. During the first week of June the humidity was not high and the weather not oppressive. The lowest humidity reported during the month was 16 per cent. He adds that on July 3 and 4 the Weather Bureau thermometer registered 125°.

TABLE 1.—*Climatological data for June, 1913. District No. 11, California.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oregon.																			
Klamath Falls	Klamath	4,100	24	57.2	− 1.9	82	1	36	20	36	2.54	+ 1.76	0.57	0	9	7	15	8	nw.	Augusta J. Hayden.
Lakeview	Lake	4,825	30	54.3	− 4.4	79	2	30	20	39	3.22	+ 2.12	0.96	T.	11	9	9	12	s.	C. C. Gott.
Merrill	Klamath	4,070	8																	
Yonna	....do	4,146	6	54.3	.....	81	6	26	20	53	1.72	.....	0.47	0	8	3	13	14	w.	Ward Rueck.
California.																				
Alturas	Modoc	4,400	9	58.5	.....	86	1†	29	20	51	2.20	.....	0.75	0	11	13	12	5	sw.	Prof. C. Bowle.
Angiola	Tulare	208	13	72.5	+ 0.1	99	30	41	30	55	0.20	+ 0.20	0.20	0	1	27	0	3	n.	Santa Fe Co.
Antioch **	Contra Costa	85	34	70.9	− 1.1	94	27	50	24†	....	0.00	− 0.11	0.00	0	0	30	0	0	.....	Southern Pacific Co.
Aptos **	Santa Cruz	102	28	63.9	+ 1.4	84	2	50	11	....	0.25	+ 0.15	0.20	0	2	17	6	7	nw.	Do.
Arrowhead Springs	San Bernardino	2,000	4	66.4	.....	98	21	48	7†	39	1.10	.....	0.55	0	3	19	9	2	.....	Dr. E. J. Erekson.
Auburn	Placer	1,360	42	67.1	− 3.7	92	2	42	10	39	0.00	− 0.44	0.00	0	0	24	3	3	ne.	Southern Pacific Co.
Avalon	Los Angeles	30	3	62.2	.....	82	30	54	10†	22	0.09	.....	0.08	0	2	18	8	4	e.	T. S. Manning.
Azusa	....do	540	11	66.6	− 1.4	99	21†	45	11	52	0.47	+ 0.32	0.30	0	3	1	20	9	.....	A. P. Griffith.
Bagdad	San Bernardino	784	10	88.9	− 1.3	110	23	68	10†	29	0.00	0.00	0.00	0	0	30	0	0	.....	Santa Fe Co.
Bakersfield	Kern	404	24	70.6	− 8.2	99	5†	40	28	54	0.36	+ 0.33	0.36	0	1	27	0	3	.....	Do.
Barstow	San Bernardino	2,105	10	73.8	− 3.6	101	21†	48	9	45	0.05	+ 0.05	0.05	0	1	23	7	0	w.	E. L. White.
Berkeley	Alameda	317	26	61.0	+ 0.1	84	30	46	9†	31	T.	− 0.20	T.	0	0	12	12	6	sw.	State University.
Betteravia	Santa Barbara	.....	....	66.4	.....	92	19	42	13	44	0.36	.....	0.36	0	1	13	15	2	w.	Union Sugar Co.
Biggs **	Butte	98	14	68.3	− 5.2	100	30	50	4†	....	0.11	− 0.39	0.08	0	2	18	3	9	s.	Southern Pacific Co.
Bishop	Inyo	4,450	18	61.3	− 6.4	91	21†	36	26†	51	0.00	− 0.05	0.00	0	0	28	1	1	.....	Paul E. Lodge.
Bishop Creek	....do	8,500	3	51.0	.....	74	21	29	10†	32	2.75	.....	1.00	T.	3	7	16	7	.....	Do.
Blocksburg	Humboldt	1,700	7	58.6	.....	87	1	38	26	38	2.23	.....	0.75	0	8	8	5	17	s.	Victor Hope.
Blue Canon	Placer	4,695	14																	Southern Pacific Co.
Blythe	Riverside	268	4	79.2	.....	112	22	50	1	57	0.00	.....	0.00	0	0	27	2	1	s.	C. L. Suits.
Branscomb	Mendocino	2,000	13	56.1	− 2.8	85	4	35	9†	41	0.86	− 0.53	0.40	0	7	15	8	7	n.	A. J. Haun.
Brawley	Imperial	−105	4	80.4	.....	107	21	51	9	41	0.00	.....	0.00	0	0	30	0	0	.....	M. D. Witter.
Burney	Shasta	3,300	3	57.8	.....	83	1†	32	20	45	2.78	.....	1.50	0	7	10	10	10	nw.	Mrs. M. D. Chambers.
Cahuilla	Riverside	3,600	2	58.5	.....	93	21	31	11	52	0.10	.....	0.10	0	1	20	10	0	sw.	Dr. W. L. Shawk.
Calexico	Imperial	0	8																	J. E. Peck.
Caliente **	Kern	1,200	37	69.6	− 9.3	93	5	45	1	....						20	0	10	.....	Southern Pacific Co.
Calistoga **	Napa	363	41	67.6	− 2.0	90	27	50	1	....	0.11	− 0.25	0.05	0	3	14	0	16	w.	Do.
Campbell	Santa Clara	217	16	61.3	− 0.8	87	29	40	10†	42	T.	− 0.10	T.	0	0	19	8	3	nw.	F. M. Righter.
Camptonville (near)	Yuba	3,500	6	62.8	.....	86	1	40	10†	38	0.61	.....	0.33	0	5	15	5	10	s.	Cal. Gas & Elect. Co.
Cedarville	Modoc	4,675	19	59.4	− 1.0	83	1†	33	11	41	1.97	+ 1.29	0.88	0	9	4	25	1	sw.	T. H. Johnstone.
Chico	Butte	189	43	72.5	− 4.6	98	30	45	10	41	1.01	+ 0.60	0.88	0	3	16	7	7	s.	G. H. Stephenson.
China Flat	Humboldt	600	4	66.8	.....	95	1†	42	9	42	1.09	.....	0.40	0	8	13	14	3	nw.	O. I. Westerburg.
Chino	San Bernardino	714	21																	Southern Pacific Co.
Cisco **	Placer	5,939	42	58.0	+ 3.0	80	21	41	27	....	0.63	− 0.20	0.25	0	5	24	0	6	.....	Do.
Claremont	Los Angeles	1,200	21	66.2	+ 1.0	98	29†	44	11	49	0.16	+ 0.02	0.12	0	4	13	10	7	w.	Prof. F. P. Brackett.
Cloverdale	Sonoma	340	11	66.2	− 2.2	93	29	62	21	42	T.	− 0.27	T.	0	0	23	4	3	w.	John O. Ogle.
Coalinga	Fresno	663	1	72.7	.....	97	13†	46	10	40	0.13	.....	0.10	0	2	24	4	2	e.	Union Oil Co.
Colfax	Placer	2,421	42	60.4	−10.8	82	1†	37	26	39	T.	− 0.70	T.	0	0	20	0	10	.....	Southern Pacific Co.
Colusa	Colusa	60	10	69.8	− 1.6	92	30	49	9†	37	0.12	− 0.22	0.09	0	2	21	5	4	s.	C. D. McComish.
Corning **	Tehama	277	27	78.8	+ 1.5	96	1	59	27	....	0.71	+ 0.55	0.30	0	4	15	11	4	s.	Southern Pacific Co.
Cuyamaca	San Diego	4,677	14	59.0	− 1.4	88	22	31	12	48	0.71	+ 0.46	0.71	0	1	23	2	5	s.	Cuyamaca Water Co.
Davisville	Yolo	51	41	67.2	− 7.6	98	30	38	10	48	0.07	− 0.08	0.07	0	1	25	5	0	sw.	S. H. Beckett.
Deer Creek	Nevada	3,700	6																	Cal. Gas & Elect. Co.
Del Monte	Monterey	25	2	62.4	.....	76	24	51	14	22	0.00	.....	0.00	0	0	26	0	4	w.	H. R. Warner.
Delta	Shasta	1,138	28	63.4	− 8.1	95	11†	40	9†	45	2.41	+ 1.07	1.01	0	4	22	0	8	s.	Southern Pacific Co.
Denair	Stanislaus	126	13	69.6	− 2.0	96	30	48	10†	38	0.10	+ 0.01	0.10	0	1	23	0	7	.....	Santa Fe Co.
De Sabla	Butte	2,500	9	62.6	.....	86	1	40	10†	42	1.51	.....	1.07	0	4	14	16	0	sw.	Cal. Gas & Elect. Co.
Dobbins (near)	Yuba	1,650	9	68.4	.....	90	29†	48	10†	38	0.47	.....	0.19	0	4	11	19	0	s.	Do.
Downieville	Sierra	3,150	2	61.0	.....	87	5	35	20	50	1.54	.....	0.42	0	9	13	12	5	s.	J. T. Mason.
Dudley	Kings	595	....	73.3	.....	103	30	40	9	45	0.70	.....	0.55	0	2	19	9	2	sw.	Union Oil Co.
Dudleys	Mariposa	3,000	4	57.9	.....	84	30	33	10	45	0.69	.....	0.60	0	2	13	8	9	nw.	W. H. Dudley.
Dunlap (near)	Fresno	2,800	1	60.2	.....	89	30	37	8†	34	0.80	.....	0.46	0	3	19	6	5	.....	U. S. Forest Service.
Dunnigan **	Yolo	65	36	79.3	+ 1.4	96	30	62	9†	....	0.10	− 0.10	0.10	0	1	22	5	3	n.	Southern Pacific Co.
Dunsmuir **	Siskiyou	2,285	24	64.2	− 0.5	91	2	47	27	....	2.57	+ 1.63	0.74	0	11	16	0	14	n.	Do.
Durham	Butte	160	18	71.2	− 1.4	95	1†	48	15	40	0.86	+ 0.57	0.25	0	4	14	8	8	s.	R. W. Durham.
El Cajon	San Diego	482	14	65.2	− 2.0	95	29	47	1	44	0.10	− 0.01	0.10	0	1	29	0	1	sw.	H. H. Kessler.
Electra	Amador	725	9	69.8	.....	96	30	50	10	36	0.02	.....	0.01	0	2	24	6	0	.....	Cal. Gas & Elect. Co.
Emigrant Gap	Placer	5,230	39	56.2	− 3.3	78	21	30	10	34	0.21	− 0.85	0.11	0	3	20	0	10	.....	Southern Pacific Co.
Escondido	San Diego	657	19	66.8	− 1.4	94	20†	42	11	44	0.10	0.00	0.05	0	2	8	19	3	w.	A. R. Moon.
Eureka	Humboldt	64	27	55.3	+ 0.7	65	21	45	5	16	1.60	+ 0.42	0.57	0	15	7	16	7	n.	U. S. Weather Bureau.
Farmington **	San Joaquin	111	34								0.00	− 0.14	0.00	0	0	24	6	0	nw.	Southern Pacific Co.
Folsom	Sacramento	252	41	75.0	+ 0.9	100	30	55	7	35	T.	− 0.23	T.	0	0	17	1	12	s.	F. O. Hutton.
Fordyce Dam	Nevada	6,500	18	58.5	.....	80	3	41	29	35	2.14	+ 0.37	0.65	0	12	10	13	7	sw.	E. E. Roening.
Fort Bidwell	Modoc	4,735	24	58.8	− 5.4	84	3	33	20	41	2.31	+ 1.28	0.90	0	8	9	11	10	sw.	C. R. Declous.
Fouts Springs	Colusa	1,650	9																	A. J. Burgi.
Fresno	Fresno	293	26	72.0	− 3.8	97	30	50	10	36	0.10	0.00	0.06	0	2	17	9	4	nw.	U. S. Weather Bureau.
Galt **	Sacramento	49	35																	Southern Pacific Co.
Georgetown	Edorado	2,650	40																	C. L. Buchler.
Gilroy **	Santa Clara	193	39	66.4	− 0.6	95	21†	45	8†	....	0.06	− 0.02	0.03	0	2	14	4	12	se.	Southern Pacific Co.
Gilta	Siskiyou	3,300	3	67.6	.....	88	4	45	18	27	1.95	.....	0.67	0	9	1	15	14	.....	A. Dannenbrink.
Glennville	Kern	3,300	3	62.4	.....	86	30	39	10	38	0.58	.....	0.58	0	2	14	13	3	.....	C. H. Likely.
Gold Run	Placer	3,222	14	64.2	− 4.3	83	1	42	10	28	0.10	− 0.59	0.10	0	1	17	11	2	.....	Southern Pacific Co.
Gonzales **	Monterey	127	14	65.0	+ 4.9	84	27†	50	8†	....	T.	− 0.01	T.	0	0	30	0	0	.....	Do.
Grass Valley	Nevada	2,690	41	62.0	.....	82	30	42	10	32	0.88	+ 0.12	0.46	0	3	20	3	7	sw.	Mrs. L. M. Wentworth.
Greenland Ranch	Inyo	−178	2	92.4	.....	119	22	60	10	46	0.00	.....	0.00	0	0	21	0	9	.....	J. W. Corkhill.
Greenville	Plumas	3,600	19	57.4	− 2.1	89	4	31	15†	49	2.08	+ 1.29	1.30	0	4	14	8	8	sw.	C. H. Higbie.
Groveland	Tuolumne	2,828	4																	H. S. Richardson.
Guinda **	Yolo	350	15	72.2	− 5.2	92	3†	44	10	....	0.18	+ 0.05	0.12	0	3	12	6	12	.....	Southern Pacific Co.
Hanford	Kings	249	13																	Santa Fe Co.
Healdsburg	Sonoma	110	20	66.8	+ 0.9	95	12†	42	9	46	T.	− 0.35	T.	0	0	17	0	13	se.	Dr. F. J. Kinley.
Hearst	Mendocino	1,800	3	61.6	.....	82	1†	42	10	30	1.09	.....	0.42	0	7	18	12	0	.....	H. D. Ellmaker.
Heber	Imperial	−20	7	82.4	.....	112	21	55	11	54	0.00	.....	0.00	0	0	26	4	0	w.	F. E. Hamilton.
Hetch Hetchy	Tuolumne	3,665	3	59.9	.....	87	21†	39	11	43	3.18	.....	1.49	0	9	13	3	14	n.	E. J. Kopplitz.
Hollister	San Benito	284	39	61.2	− 4.7	89	21	42	15	40	0.17	+ 0.04	0.17	0	1	14	14	2	w.	J. N. Thompson.
Hornbrook	Siskiyou	2,154	25	55.1	−11.4	82	30	40	1†	....	0.26	− 0.30	0.10	0	3	6	11	13	s.	Southern Pacific Co.
Hot Springs	Tulare	3,300	6	64.4	.....	88	30	43	10†	39	0.77	.....	0.53	0	4	21	7	2	.....	U. S. Forest Service.
Hullville	Lake	2,250	6	61.3	.....	86	1†	37	10†	48	1.10	.....	0.84	0	7	0	23	7	nw.	T. H. Betterton.

TABLE 1.—*Climatological data for June, 1913. District No. 11*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
California—Continued.																				
Independence	Inyo	3,907	17	67.0	− 6.4	92	21†	42	28	39	0.21	+ 0.17	0.14	0	4	13	12	5		U. S. Weather Bureau.
Indian Wells	Kern	2,500																		I. D. McCoy.
Indio	Riverside	−20	35	83.3	− 5.0	111	21	60	10	37	0.00	0.00	0.00	0	0	22	8	0	nw.	F. N. Johnson.
Inskip	Butte	4,975	6	56.4	.....	76	4	40	2†	34	1.93	.....	1.14	0	6	5	10	15	.....	Cal. Gas & Elect. Co.
Ione **	Amador	287	35	75.4	+ 1.8	97	30	56	7	...	0.00	− 0.25	0.00	0	0	23	1	6	.....	Southern Pacific Co.
Jamestown	Tuolumne	1,471	10	64.8	− 3.4	96	30	38	7	51	0.00	− 0.24	0 00	0	0	21	2	7	.....	Sierra Railway Co.
Kennett	Shasta	730	1	71.1	.....	100	3	48	15†	41	1.71	.....	0.47	0	6	10	20	0	sw.	C. H. Kremers.
Kentfield	Marin	65	25	64.0e	.....	92	29	44	11†	41	T.	− 0.47	T.	0	0	21	6	3	.....	Miss M. E. Parsons.
King City	Monterey	333	26	62.7	− 0.9	100	24	34	18	60	0.18	+ 0.16	0.18	0	1	29	0	1	n.	Southern Pacific Co.
Lake Eleanor	Tuolumne	4,700	3																	O. J Todd.
La Porte	Plumas	5,000	19	53.2	− 3.0	76	3	35	14†	36	1.00	− 0.60	0.33	0	7	11	15	4	s.	C. W. Hendel.
Le Grand	Merced	255	13	70.0	− 2.9	98	30	40	29	52	9.10	+ 0.10	0.10	0	1	25	0	5	.....	Santa Fe Co.
Lemon Cove	Tulare	600	18	74.4	− 1.6	101	30	49	10†	46	0.46	+ 0.37	0.46	0	1	11	17	2	n.	W. R. Park.
Lick Observatory	Santa Clara	4,209	24	55.2	− 4.8	74	12	34	9	22	0.07	− 0.33	0.03	0	4	16	6	8	n.	The Director.
Livermore	Alameda	485	42																	E. G. Still.
Lone Pine	Inyo	2,728	8	66.2	.....	94	23†	44	3†	48	0.29	.....	0.10	0	5	17	11	2	n.	G. F. Marsh.
Long Valley	Lassen	4,400	4																	A. G. Evans.
Los Angeles	Los Angeles	293	36	64.4	− 0.1	90	29	52	10	29	0.58	+ 0.48	0.58	0	2	12	8	10	sw.	U. S. Weather Bureau.
Los Banos **	Merced	121	26	68.3	− 7.1	92	21†	54	10	...	T.	− 0.08	T.	0	0	13	0	17	w.	Southern Pacific Co.
Los Gatos	Santa Clara	600	26	64.1	− 0.7	91	29	43	9†	42	0.06	− 0.03	0.06	0	1	25	3	2	n.	F. H. McCullagh.
McCloud	Siskiyou	3,410	3	57.6	.....	87	2†	33	10	44	2.77	.....	1.06	0	11	13	14	3	s.	F. F. Spencer.
Macdoel	do	4,528	8	52.4	.....	85	3	32	20	39	0.71	.....	0.50	0	6	15	1	14	n.	Butte Valley Land Co.
Madeline	Lassen	5,270	4	53.8	.....	78	2	27	20	44	2.50	.....	0.70	0	9	9	13	8	nw.	J. H. Williams.
Magalia	Butte	2,321	9	62.6	.....	91	1	41	10	36	0.58	.....	0.30	0	2	17	11	2	n.	Butte County R. R. Co.
Mammoth Tank	Imperial	257	35	85.8	− 6.7	112	21	62	10†	44	0.00	0.00	0.00	0	0	30	0	0	sw.	Southern Pacific Co.
Maricopa	Kern	640	2	73.9	.....	98	30	52	9	33	0.38	.....	0.38	0	1	19	9	2	e.	Union Oil Co.
Marysville	Yuba	67	42	72.0	− 4.2	99	1	48	14	42	T.	− 0.27	T.	0	0	19	0	11	s.	Southern Pacific Co.
Mecca	Riverside	−185	7	82.4	.....	110	21	59	10†	43	0.00	.....	0.00	0	0	27	3	0	se.	E. A. Palmer.
Menlo Park **	San Mateo	64	35	63.8	− 2.5	74	2†	56	25	....	T.	− 0.15	T.	0	0	....	....	....	....	Southern Pacific Co.
Merced	Merced	173	39	70.2	− 5.1	95	22	47	10	39	0.18	+ 0.06	0.10	0	3	18	9	3	nw.	Santa Fe Co.
Middlewater	Kern	803	2	77.2	.....	98	30	51	8†	34	0.43	.....	0.43	0	1	22	1	7	w.	Union Oil Co.
Mill Creek (1)	Amador	2,500	6	58.4	.....	79	30	39	9†	36	1.22	.....	1.15	0	3	14	12	4	n.	Cal. Gas & Elect. Co.
Milton (near)	Calaveras	660	22	69.1	− 2.7	97	30	47	7†	42	T.	− 0.25	T.	0	0	20	10	0	nw.	J. H. Southwick.
Modesto **	Stanislaus	90	41	66.9	− 9.7	92	6†	50	8	....	0.00	− 0.11	0.00	0	0	29	0	1	.....	Southern Pacific Co.
Mojave	Kern	2,751	36	71.2	− 6.3	98	12†	50	10	...	0.00	− 0.04	0.00	0	0	20	10	0	w.	Do.
Mokelumne Hill	Calaveras	1,550	20	66.1	− 2.0	92	30	43	10	34	T.	− 0.41	T.	0	0	15	1	14	.....	C. E. Prindle.
Mono Ranch	Ventura	3,210	7	62.0	.....	92	1	34	10	50	1.22	+ 1.10	0.50	0	4	18	2	10	w.	Herbert Lathrop.
Montague	Siskiyou	2,450	25	62.3	− 4.6	92	1	39	10	45	4.21	+ 3.58	0.90	0	10	4	10	16	w.	I. E. Deboy.
Monterey **	Monterey	15	48	65.0	+ 4.2	80	19†	54	7†	....	0.13	+ 0.03	0.13	0	1	28	2	0	e.	Southern Pacific Co.
Monterio	Kern	4,500	14																	John C. Knecht.
Mount Tamalpais	Marin	2,375	14	56.7	− 7.4	78	29	41	9	21	0.04	− 0.08	0.02	0	3	16	10	4	nw	U. S. Weather Bureau.
Napa City	Napa	20	36	60.6	− 4.0	92	29	38	12	44	0.20	− 0 01	0.20	0	1	19	11	0	sw.	Alex. Hull.
Napa (S. H.)	do	60	35	65.6	− 0.2	90	21	46	9	34	0.20	− 0.01	0.20	0	1	13	12	5	sw.	A. R. Edgar.
Needles	San Bernardino	477	21	86.6	− 0.7	107	23	60	2	36	0.00	− 0.01	0.00	0	0	27	3	0	s.	Santa Fe Co.
Nellie	San Diego	5,350	4	63.0	.....	88	19†	40	10†	40	1.09	.....	1.04	0	2	25	2	3	.....	T. O. Bailey.
Nevada City	Nevada	2,850	21	60.3	− 2.4	89	30	34	11†	48	1.12	+ 0.45	0.62	0	3	16	14	0	se.	S. W. Marsh.
Newhall **	Los Angeles	1,200	36	70.7	0 0	98	20	52	5†	...	0.18	+ 0.11	0.13	0	2	25	0	5	sw.	Southern Pacific Co.
Newman	Stanislaus	91	24	73.8	− 2.7	101	12†	47	16	51	0.10	+ 0.04	0.10	0	1	....	....	....	....	E. S. Wangenheim.
North Bloomfield	Nevada	3,214	16	66.1	+ 1.1	84	29†	40	27	30	0.20	− 0.71	0.20	0	1	15	6	9	s.	J. R. McIntosh.
North Fork	Madera	3,000	9	63.0	.....	90	22	37	10	39	1.38	.....	0.65	0	4	12	15	3	sw.	U. S. Forest Service.
Oakdale **	Stanislaus	156	19	69.4	− 2.5	98	30	57	8†	....	T.	− 0.21	T.	0	0	23	1	6	nw.	Southern Pacific Co.
Oak Grove	San Diego	2,751	3																	B. L. Johnson.
Oakland	Alameda	36	37	63.3	+ 1.8	84	21	49	10	32	T.	− 0.30	T.	0	0	14	8	8	w.	Chabot Observatory.
Oceanside	San Diego	60	3	65.0	.....	77	29	54	10	20	0.16	.....	0.14	0	2	14	11	5	w.	H. D. Brodie.
Ojai Valley	Ventura	900	7	64.6	.....	100	29	41	11	50	0.85	.....	0.48	0	4	15	9	6	sw.	W. H. Duncan.
Orland	Glenn	254	31	73.0	− 5.7	97	1†	48	9	44	0.63	+ 0.29	0.30	0	4	23	5	2	s.	U. S. Reclamation Service.
Orleans	Humboldt	520	10	70.2	− 0.6	104	1	46	14	46	2.76	+ 1.77	0.95	0	8	15	0	15	.....	F. T. Hale.
Oroville (near)	Butte	250	29	71.0	− 3.5	97	30	42	2	47	0.44	+ 0.11	0.20	0	3	15	6	9	s.	E. D. Fairchild.
Palermo	do	213	22	65.1	− 7.9	96	17	40	4	45	0.25	− 0.10	0.25	0	1	16	8	6	s.	Western Pacific Co.
Palm Spring **	Riverside	584	24	80.9	− 6.8	110	21†	62	1	....	0.00	0.00	0.00	0	0	30	0	0	.....	Southern Pacific Co.
Pasadena	Los Angeles	827	23	65.2	− 5.4	95	29	44	11	44	0.76	+ 0.75	0.55	0	3	15	6	9	sw.	E. D. Sorver.
Paso Robles	San Luis Obispo	800	26	64.4	− 3.8	100	22	37	9	49	0.15	+ 0.12	0.15	0	1	24	4	2	nw.	Dr. F. W. Sawyer.
Peachland	Sonoma	190	17	61.4	− 2.5	92	30	40	10†	45	0.07	− 0.31	0.07	0	1	23	6	1	sw.	E. H. Parnell.
Petaluma	do			61.4	.....	89	29	40	11	43	0.01	.....	0.01	0	1	17	12	1	nw.	John Landis.
Placerville	Eldorado	1,875	24	63.8	− 2.6	88	29†	42	10†	44	0.02	− 0.64	0.02	0	1	....	....	....	....	A. E. May.
Point Lobos	San Francisco	250	20	56.3	0.0	70	21	49	5†	17	0.01	− 0.13	0.01	0	1	14	7	9	nw.	John Hyslop.
Point Reyes	Marin	490	21	53.8	+ 1.0	63	18	47	6	12	0.04	− 0.21	0.03	0	2	12	3	15	nw.	U. S. Weather Bureau.
Pomona	Los Angeles			67.0	.....	98	21†	41	11	50	0.19	.....	0.11	0	2	9	1	20	sw.	J. E. Adamson.
Porterville	Tulare	464	24	73.4	− 5.4	100	30	48	10	44	0.10	− 0.01	0.10	0	1	25	3	2	.....	Leslie McAuliff.
Quincy	Plumas	3,400	18	59.6	− 1.2	84	2	28	14	52	0.60	− 0.33	0.20	0	5	16	10	4	s.	U. S. Forest Service.
Red Bluff	Tehama	307	36	71.8	− 3.9	95	1	50	10	34	0.54	+ 0.05	0.24	0	5	15	8	7	se.	U. S. Weather Bureau.
Redding	Shasta	552	38	72.0	− 3.6	94	2†	50	10	36	1.45	+ 0.72	0.76	0	6	10	20	0	nw.	W. W. Jones.
Redlands	San Bernardino	1,352	20	66.8	− 4.9	97	30	43	20	50	0.21	+ 0.10	0.21	0	1	14	7	9	w.	W. S. Devol.
Reedley	Fresno	347	13	72.0	− 4.0	96	30	50	10	36	0.00	− 0.02	0.00	0	0	22	0	8	nw.	Santa Fe Co.
Rialto (near)	San Bernardino	2,250	7	66.1	.....	93	20†	44	11	32	1.11	.....	0.54	0	4	13	12	5	sw.	Southern Cal. Edison Co.
Riverside	Riverside	851	31	68.8	− 1.8	101	21†	43	11	51	0.18	+ 0.13	0.17	0	2	11	18	1	sw.	J. H. D. Cox.
Rocklin	Placer	249	42	69.3	− 5.7	95	1†	44	8	41	T.	− 0.25	T.	0	0	21	4	5	se.	Southern Pacific Co.
Rohnerville	Humboldt	75	10	57.0	.....	73	22	39	5	27	1.06	+ 0.50	0.30	0	5	12	10	8	nw.	Dr. R. Callahan.
Sacramento	Sacramento	71	36	66.5	− 2.4	93	30	48	9	33	0.11	− 0.06	0.11	0	1	22	7	1	s.	U. S. Weather Bureau.
St. Helena	Napa	255	5	66.3	.....	95	20†	42	9†	47	0.25	.....	0.24	0	2	27	2	1	.....	E. E. Hooper.
Salinas	Monterey	40	39	60.4	− 1.6	76	19†	47	17†	26	0.33	+ 0.20	0.33	0	1	....	....	....	....	Miss E. Ruth Abbott.
San Bernardino	San Bernardino	1,054	21	68.2	− 1.6	101	21	43	11	52	0.39	+ 0.31	0.33	0	3	13	15	2	sw.	Dr. A. K. Johnson.
San Diego	San Diego	93	42	62.8	− 1.0	79	30	56	11	20	0.09	+ 0.03	0.03	0	4	11	14	5	s.	U. S. Weather Bureau.
San Francisco	San Francisco	207	42	58.2	+ 1.2	73	21	50	6	19	0.02	− 0.22	0.01	0	2	14	10	6	w.	Do.
San Jacinto	Riverside	1,550	20	68.9	− 1.5	102	21	45	11	46	0.16	+ 0.16	0.16	0	1	24	3	3	w.	E. T. Tanner.
San Jose	Santa Clara	95	38	62.8	− 2.2	87	29	42	9	38	0.01	− 0.12	0.01	0	1	14	13	3	nw.	U. S. Weather Bureau.
San Luis Obispo	San Luis Obispo	201	18	61.6	+ 1.2	91	21	44	11	33	0.59	+ 0.47	0.59	0	1	12	10	8	nw.	Do.
San Mateo **	San Mateo	22	31	72.5	+ 7.7	82	22†	60	1†	....	0.00	− 0.16	0.00	0	0	26	1	3	n.	Southern Pacific Co.
San Miguel **	San Luis Obispo	616	24	73.0	+ 2.3	93	30	54	7	....	0.02	0.00	0.02	0	1	19	10	1	.....	Do.
San Miguel Island	Santa Barbara	500	19																	Capt. W. G. Waters.
Sanger **	Fresno	371	24	76.8	− 3.3	97	30	56	10	...	0.12	+ 0.01	0.10	0	2	25	2	3	.....	Southern Pacific Co.
Santa Barbara	Santa Barbara	130	29	58.4	− 4.2	86	20†	48	10	34	0.50	+ 0.41	0.45	0	2	13	8	9	w.	G. W. Russell.
Santa Clara	Santa Clara	90	24	63.6	+ 1.5	90	29	40	9	43	T.	− 0.02	T.	0	0	20	9	1	nw.	Santa Clara University.
Santa Cruz	Santa Cruz	20	40	61.0	− 2.1	94	21	39	15	47	0.25	+ 0.03	0.25	0	1	18	7	5	w.	W. R. Springer.
Santa Margarita **	San Luis Obispo	996	24	70.0	+ 1.7	99	22	40	26	....	1.00	+ 0.95	1.00	0	1	9	3	18	sw.	Southern Pacific Co.

TABLE 1.—*Climatological data for June, 1913. District No. 11*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
California—Continued.																				
Santa Monica	Los Angeles	110	28	59.4	− 5.7	80	29	47	11	28	0.63	+ 0.63	0.63	0	1	14	9	7	w.	F. E. Hill.
Santa Rosa	Sonoma	181	24	61.0	− 4.2	93	30	35	20	54	0.05	− 0.20	0.05	0	1	14	6	10	s.	Southern Pacific Co.
Selma **	Fresno	311	27	66.2	−12.0	97	30	45	7†	....	0.00	− 0.04	0.00	0	0	28	0	2	.....	Do.
Seven Oaks	San Bernardino	5,000	3	55.4	.....	80	22†	31	27	37	0.11	.....	0.11	0	1	16	5	9	w.	M. Lewis.
Sierra Madre	Los Angeles	1,400	16	65.4	− 1.6	92	21	48	11	36	1.48	+ 1.23	1.03	0	2	10	13	7	s.	Mrs. A. E. Gregory.
Sierraville	Sierra	5,000	3	51.6	.....	79	3	28	20	39	0.51	.....	0.35	0	3	10	13	7	sw.	C. D. Johnson.
Sisson	Siskiyou	3,555	24	56.6	− 5.9	81	1	31	13	35	2.20	+ 1.56	0.94	0	5	18	6	6	n.	Southern Pacific Co.
Soledad **	Monterey	188	39	66.1	+ 0.6	83	10†	51	18	....	0.10	+ 0.05	0.10	0	1	19	0	11	n.	Do.
Sonora	Tuolumne	1,825	2	66.4	.....	89	21	46	27	37	0.18	− 0.13	0.18	0	1	19	11	0	w.	Chas. P. Jones.
Southeast Farallon	San Francisco	30	10	54.6	+ 2.3	62	23	49	6	10	0.02	− 0.14	0.02	0	1	14	7	9	nw.	U. S. Weather Bureau.
Springville	Tulare	4,000	6	59.8	.....	85	30	34	10	37	0.85	.....	0.30	0	5	23	1	6	.....	D. L. Wishon.
Squirrel Inn	San Bernardino	5,280	3	56.8	.....	82	21	35	10	29	1.13	.....	0.73	0	2	20	5	5	sw.	A. D. Frantz.
Stanwood	Butte	2,140	9	64.6	.....	82	9	40	21	38	1.92	.....	0.78	0	9	20	0	10	n.	Cal. Gas & Electric Co.
Stirling City	....do	3,525	9	64.8	.....	88	19	40	13†	42	0.15	.....	0.10	0	2	15	8	7	.....	Butte County R. R. Co.
Stockton (S. H.)	San Joaquin	23	42	68.0	− 1.9	91	29†	49	10	35	0.00	− 0.12	0.00	0	0	23	6	1	nw.	State Hospital.
Storey	Madera	296	13	69.0	− 3.3	97	21	48	20†	43	0.00	− 0.01	0.00	0	0	28	0	2	.....	Santa Fe Co.
Suisun **	Solano	20	33	71.3	+ 3.0	99	30	45	3†	....	0.06	− 0.16	0.06	0	1	30	0	0	sw.	Southern Pacific Co.
Sulphur Banks	Lake	1,350	1	65.9	.....	90	1†	48	9†	35	0.27	.....	0.27	0	1	18	11	1	w.	L. S. Lorenzen.
Summit	Placer	7,017	40	48.8	− 4.4	67	21	31	27	28	0.05	− 0.59	0.05	0.5	1	8	0	22	s.	Southern Pacific Co.
Susanville	Lassen	4,175	24	61.9	− 0.5	92	4	36	20	52	2.17	+ 1.67	1.40	0	7	13	8	9	.....	C. M. Benty.
Tamarack	Alpine	8,000	7	46.6	.....	66	13†	30	5†	35	7.44	+ 6.43	1.30	3.0	11	7	10	13	sw.	Cal. Gas & Electric Co...
Tehachapi **	Kern	3,964	26	66.8	− 2.6	80	6†	40	10	....	0.52	+ 0.44	0.42	0	2	.....	.....	.....	.....	Southern Pacific Co.
Tehama	Tehama	220	42	74.2	− 3.4	99	1	54	10	....	0.45	+ 0.18	0.30	0	3	23	3	4	s.	Do.
Tejon Rancho	Kern	1,500	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	S. E. Bailey.
Three Rivers	Tulare	870	3	69.9	.....	96	30	48	20	42	0.56	.....	0.37	0	2	8	20	2	sw.	J. H. Pierce.
Towle	Placer	3,704	27	64.4	+ 1.4	81	22	46	8	26	0.47	− 0.56	0.40	0	4	22	6	2	ne.	Southern Pacific Co.
Tracy **	San Joaquin	64	33	76.0	+ 0.1	96	30	60	8†	....	0.00	− 0.17	0.00	0	0	.....	.....	.....	.....	Do.
Ukiah	Mendocino	620	20	64.4	− 1.0	92	29	39	10	45	0.03	− 0.31	0.03	0	1	18	11	1	nw.	Dr. Geo. McCowen.
Upper Lake	Lake	1,350	28	64.0	− 2.7	91	29	37	10	44	0.01	− 0.24	0.01	0	1	21	7	2	nw.	C. M. Hammond.
Vacaville	Solano	175	25	68.4	− 2.6	97	20†	40	10	50	T.	− 0.16	T.	0	0	16	14	0	sw.	G. O. Coburn.
Valley Springs **	Calaveras	673	24	71.1	− 3.0	97	20	57	10	....	0.00	− 0.27	0.00	0	0	20	10	0	nw.	Southern Pacific Co.
Visalia	Tulare	334	25	63.4	− 9.9	85	30	37	1	39	0.28	+ 0.18	0.28	0	1	30	0	0	ne.	Santa Fe Co.
Warner Springs	San Diego	3,165	5	63.6	.....	92	21	39	10	39	0.13	.....	0.13	0	1	22	8	0	.....	Mrs. F. S. Sandford.
Wasco	Kern	336	13	78.1	+ 3.1	109	24	54	2	41	0.00	0.00	0.00	0	0	30	0	0	nw.	Santa Fe Co.
Watsonville	Santa Cruz	23	17	60.8	− 1.6	97	22	36	10	50	0.16	+ 0.02	0.07	0	3	11	12	7	w.	Spreckels Sugar Co.
Weaverville	Trinity	2,162	1	61.0	.....	89	2	37	10†	40	0.93	+ 0.16	0.33	0	8	11	15	4	.....	U. S. Forest Service.
Weitchpec	Humboldt	1,700	3	59.0	.....	89	1	37	9	38	2.46	.....	0.94	0	9	12	14	4	s.	M. E. Lathrop.
Westley **	Stanislaus	90	24	75.7	− 1.9	96	21	50	15	....	0.00	− 0.06	0.00	0	0	28	0	2	n.	Southern Pacific Co.
Wheatland	Yuba	84	26	69.8	− 1.6	94	30	48	10	37	0.09	− 0.19	0.07	0	2	16	8	6	s.	Wm. Lumbard.
Willows	Glenn	136	34	73.4	− 3.5	97	12	47	10	44	0.92	+ 0.74	0.87	0	3	27	3	0	s.	E. C. Mills.
Yorba Linda	Orange	.....	.....	66.4	.....	98	21†	40	19	52	0.10	.....	0.07	0	2	12	11	7	w.	S. J. Walker.
Yosemite	Mariposa	3,945	9	54.3	.....	87	21†	22	10	39	3.01	.....	0.95	0	9	16	3	11	s.	J. P. Kelly.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for June, 1913. District No. 11, California.*

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Oregon.																															
Klamath Agency	Klamath																														
Klamath Falls	do	.03							.16	.44										.57			.20		.05	.02	.52	.55				
Lakeview	Pitt	T.	T.	T.	.09			.96	T.	.11									.06	.10			.77		.03	.04	.74	.13	.19			2.54
Merrill	Int. drainage																															3.22
Vistillas	Pitt		.27		.26			.06		.15									.04	.04			.32		.18	.22	.43	.76	.04			2.77
Yonna	Int. drainage							.23	.15	.11									.04	.04		T.	.25	T.			.43	.47				1.72
California.																															
Aguanga	Coast																											.05				
Alturas	Sacramento			.04						.27	.17									.10			.18	.06	.75	.18	.10	.22	.13			0.05
Angels Camp	San Joaquin								.10														T.		T.							2.20
Angiola	do																										.20					0.10
Antelope Valley	do																											.70				0.20
Antioch	do																															0.70*
Aptos	Coast																										.05	.20				0.00
Arrowhead Springs	do																								.30	.25	.55					0.25
Auburn	Sacramento																															1.10
Avalon	Ocean			T.		.01																						.08				0.00
Azusa	Coast																									.05	.12	.30				0.09
Bagdad	Desert																															0.47
Bakersfield	San Joaquin																									T.	.36					0.00
Barstow	Desert			T.		T.	.05																									0.36
Bear River	San Joaquin																															0.05
Bear Valley	do				.21	.10																										
Bear Valley Dam	do																												32			0.63
Beaumont	do																										.15	.02				
Beaumont (near)	do																										.32					0.17
Belotta	do																															0.32
Ben Lomond	Coast																										.18					0.00
Berkeley	do																						T.									0.18
Betteravia	do																															T.
Biggs	Sacramento	.03																									.36					0.36
Bishop	Owens																										.08					0.11
Bishop Creek	do	T.	1.00	T.	T.	T.	T.			.75	1.00																					0.00
Blocksburg	Coast								.15					.45					.25	.75		.13			.34	.03	.13					2.75
Blue Canon	Sacramento																															2.23
Blythe	Desert																															
Boulder Creek	Coast																															0.00
Bowmans Dam	Sacramento	T.	.13	.19	.27	.45																				T.	.11					0.11
Branscomb	Coast		T.						.02										.40	.12			.24	.18	.01	.14						1.36
Brawley	Desert																							.04				.03				0.86
Burney	Sacramento		.24		T.					.36										.24				.15	T.	.04	1.50	.25				0.00
Butte Valley	do																															2.78
Cahuilla	Coast																															
Calexico	Desert																											.10				0.10
Caliente	San Joaquin																															
Calistoga	Coast									.03										.05									.03			
Campbell	do				T.																											0.11
Campo	do																									T.	T.					T.
Camptonville (near)	Sacramento	.03	T.						T.																			.20				0.20
Cedarville	Mountain Lakes	T.		T.				.88		.07	.03		T.							.12				.02	T.	T.	.33	.11				0.61
Chester	Sacramento			.09	.30	T.	T.																.17	.08	.42	.19	.05	.08				1.97
Chico	do																			.25			.05	1.63	.15	.31	.71	.04				3.53
Chico (near)	do																			.05							.88	.08				1.01
China Flat	Coast	.13	.07					.03											.08				T.			1.13	.02					1.23
Chino	do																		.40	.03		.05	.10				.28	T.				1.09
Cisco	Sacramento				.02	.10		.16																								
Claremont	Coast		.01		.01															T.				.10	T.		T.	.25				0.63
Cloverdale	do																										T.	.12	.02			0.16
Coalinga	San Joaquin																			T.			T.					T.				T.
Colfax	Sacramento																										.03	.10				0.13
Colgate	do		.20																	T.												T.
Colusa	do	T.								T.										.02								.26	T.			0.48
Corning	do																		.03				T.				.09					0.12
Corona	Coast																		.03				.10			.28	.30					0.71
Cuyamaca	do																									.19						0.19
Davisville	Sacramento																											.71				0.71
Deer Creek	do									.07																		T.				0.07
Del Monte	Coast																															
Delta	Sacramento									.40									.50							.50	1.01					0.00
Denair	San Joaquin																										.10					2.41
De Sabla	Sacramento																			.32				.07		.05	1.07					0.10
Descanso	Coast																															1.51
Devils Canon	do																											.27	.67	.62		1.56
Dinuba	San Joaquin																										.10					0.10
Dobbins (near)	Sacramento	.19																		.03							.18	.07				0.47
Downieville	do	.42	.05	.01		.12				.13									T.	.24			T.	.07	T.		.36	.14				1.54
Dudley	San Joaquin																										.55	.15				0.70
Dudleys	do	T.	T.							.09													T.				.60					0.69
Dunlap (near)	do									.02																	.32	.46				0.80
Dunnigan	Sacramento										.10																T.	T.				0.10
Dunsmuir	do					T.	.39		.03	.31	.04								T.	.74	.17	T.	.16	.08	.05	T.	.29	.31				2.57
Durham	do								T.										T.	.21			T.			*	*	.65				0.86
East Park	do																										.42	.32				0.74
Edgewood	do		.02	.06					.43	.10	.12											.08	.16				.17	.72				1.86
Edison	San Joaquin																										.40	.06				0.46
El Cajon	Coast																											.10				0.10
Electra	San Joaquin	T.	.01							.01																	T.					0.02
Emigrant Gap	Sacramento		.08	.11		.02																		T.								0.21
Escondido	Coast			.05																								.05				0.10
Eureka	do			.01	.02			.12					.05	.12					.23	.34		.04	.17	.10	.05	.14	.06	.14	.01			1.60
Fairmont	do																															
Farmington	San Joaquin																															0.00
Felton	Coast																											.30				0.27
Firebaugh	San Joaquin																											.05				0.05
Folsom	Sacramento								T.	T.									T.								T.	T.				T.
Fordyce Dam	do	.05	.04	.03	.62	.14	.07		T.	.03													.03	.65			.15	.18	.15			2.14
Fort Bidwell	Mountain Lakes			T				.90		T.									T.	T.			.10	.30	.15	.13	.45	.11	.17			2.31
Fort Bragg	Coast																		.33				.17									0.50
Fort Ross	do																															
Fouts Springs	Sacramento																															

TABLE 2.—*Daily precipitation for June, 1913. District No. 11*—Continued.

Stations.	Watershed.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
California—Contd.																															
Fresno	San Joaquin	.04								T.																T.	.06					
Friant	do																										.10					0.10
Galt	do																															0.10
Georgetown	do																															
Gilroy	Coast																										.03	.03				
Gilta	do	.25	.67																.10	.34		.03	.12			T.	.11	.05	.28			0.06
Glenn Ranch	do																											.42	.05			1.95
Glennville	San Joaquin																									T.	*	.58				0.47
Glenwood	Coast	T.																									.10					0.58
Gold Run	Sacramento		.10	T.			T.												T.													0.10
Gonzales	Coast																										T.					0.10
Grass Valley	Sacramento	.36																		.06								.46				T.
Greenland Ranch	Desert																															0.88
Greenville	Sacramento		T.	T.	.53	T.	1.30	.06	T.	T.	T.											T.	T.	T.	T.	T.	T.	.19			0.00
Gridley	do																		T.	.04							.18					2.08
Groveland	San Joaquin																															0.22
Guinda	Sacramento									.12																						
Hanford	San Joaquin																										.04	.02				0.18
Head Dam	Sacramento	.20	.02																	.05							.38	.23				
Healdsburg	Coast	T.	T.																T.				T.									0.88
Hearst	do	.05	.42																.15				.02	.01			.41	.03				T
Heber	Desert																															1.09
Helen Mine	Coast																															0.00
Hetch Hetchy	San Joaquin	.07	.27	.04	.17	.35	.21		T.	.46													T.			T.	1.49	.30				0.30
Holcomb	Coast		T.	T.	1.00	.20	.53																					.12	T.			3.18
Hollister	do																											.17				1.73
Hornbrook	Klamath																															0.17
Hot Springs	San Joaquin		.09	.13																		.08			.08		.10					0.26
Hullville	Coast	.03	.10	.01						T.									.01	.01						.02	T.	.53				0.77
Hyampon	do																			.07			.02				.84	.10				1.10
Independence	Owens	.14	.01	.04						.02																		.06				0.15
Indian Wells	Desert																															0.21
Indio	do																															
Inskip	Sacramento	.10							T.											.35			T.	.19	T.	.07	1.14	.08				0.00
Ione	San Joaquin																															1.93
Jacksonville	do									.05																	.06					0.00
Jamestown	do																															0.11
Jenny Lind	do																															0.00
Jolon	Coast																															0.00
Julian	do																										.14					0.14
Kennedy Mine	San Joaquin																											.25	.30			0.55
Kennett	Sacramento	.05						T.	T.	.43									T.	.40		.08				T.	.47	.28				0.00
Kentfield	Coast	T.																														1.71
Kernville	San Joaquin																															T.
King City	Coast																															
Knights Landing	Sacramento									.10										T.							T.	.18				
La Grange	do																										.13	T.				0.18
La Jolla	Coast									.09																						0.23
Lake Eleanor	San Joaquin																											.53				0.00
Lakeside	Coast																															0.62
Lake Spaulding	Sacramento	.40	T.	T.		.10	.15		T.											T.				.20			.25	T.				
La Porte	do	T.	.01	T.			T.		.01	T.										.18			.06	.11			.33	.30				1.10
Lathrop	San Joaquin																										T.	T.				1.00
Laurel	Coast																										.10	.10				T.
Le Grand	San Joaquin																										.10					0.20
Lemon Cove	do																										.46					0.10
Lick Observatory	Coast																								.02	.01	.01	.03				0.46
Livermore	do																															0.07
Lone Pine	Owens	.05	.07	.10	.02	.05	T.	T.		T.	T.	T.																				
Long Valley	Mountain Lakes																															0.29
Lordsburg	Coast																															
Los Alamos	do																											47				0.47
Los Angeles	do																															
Los Banos	San Joaquin																										19	.39				0.58
Los Gatos	Coast																										T.					T.
Los Molinos	Sacramento																						T.				.06					0.06
Lowe Observatory	Coast																															
McCloud	Sacramento		.02		.01				.10	.36										1.06			.35	.13	.08	.11	*	1.65				1.65
Macdoel	Klamath					.05				.50								.02				.01					.26	.29				2.77
Madeline	Mountain Lakes			.70	T.	T.	T.	.26	T.	T.	.10	T.	T.										.12	.32	.61	.23	.05	.08				0.71
Magalia	Sacramento									.28													T.			.30	.03		.13	T.		2.50
Mammoth Tank	Desert																															0.58
Maricopa	San Joaquin																															0.00
Mariposa	do	.18	.03							.10																	.38					0.38
Marysville	Sacramento																		T.								.25	.08				0.64
Mecca	Desert																															T.
Melones	San Joaquin	.17								.01																						0.00
Menlo Park	Coast																															0.18
Merced	San Joaquin		.10																								T.					T.
Merced Falls	do																										.03	.05				0.18
Mesa Grande	Coast																										.08	.13				0.21
Middlewater	San Joaquin																										T.	.75				0.75
Mill Creek (1)	do	1.15	.02						.05																		.43					0.43
Mill Creek (2)	Coast																															1.22
Mills College	do																								.09	.16	.17					0.42
Milo	San Joaquin																							T.								T.
Milton (near)	do																								.04	.30						0.34
Modesto	do																						T.				T.					T.
Mojave	Desert																															0.00
Mokelumne Hill	San Joaquin	T.	T.																													0.00
Mono Ranch	Coast		.18	T.	.04	T.	T.																T.				T.					T.
Montague	Klamath	.09					.23	.88	.90	.30										.46			.10			.10	.50	.50				1.22
Monterey	Coast																										.62	.53				4.21
Monterio	San Joaquin																										.13					0.13
Montgomery Creek	Sacramento				.54					.25																						
Mount Tamalpais	Coast								.01										.02	.67			T.		.01	1.03	.28					2.77
Mount St. Helena	do																															0.04
Napa City	do																															
Napa (S. H.)	do																		T.				T.					20				0.20
Needles	Desert																											20				0.20
Nellie	Coast									.05																1.04	T.				0.00
																																1.09

TABLE 2.—*Daily precipitation for June, 1913. District No. 11*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
California—Contd.																														
Nevada City	Sacramento	.48	T.																	.02				T.				.62				1.12
Nevis	do				.03		T.		T.	T.										.16				.41		.08						0.68
Newhall	Coast																										.13	.05				0.18
Newman	San Joaquin																									.10						0.10
North Bloomfield	Sacramento	.20																														0.20
North Fork	San Joaquin	.06	T.	.08	T.	T.		T.		T.	T.																	T.				1.38
North Lakeport	Coast																										.65	.59				
Oakdale	San Joaquin																						T.				T.					T.
Oak Grove	Coast																															
Oakland	do	T.		T.																			T.		T.		T.					T.
Oakville	do																											.40				0.40
Oceanside	do	T.		T.																				T.	.02		.14					0.16
Ojai Valley	do				.05				.02										.02			T.	.06			.25	.30					0.85
Orland	Sacramento	T.											T.						.95	.01		.25	.01				.80	.01				2.76
Orleans	Klamath	T.	.70					.03											.09				T.				.15					0.44
Oroville (near)	Sacramento	.20																														0.72
Ozena	Coast				.50	.22																				.25						0.25
Palermo	Sacramento																															0.00
Palm Springs	Desert																										.57					0.57
Parkfield	Coast																									.04	.17	.55				0.76
Pasadena	do																										T.	.15				0.15
Paso Robles	do	T.	T.																T.	.07			T.									0.07
Peachland	do	T.						.01																								0.01
Petaluma	do	T.																														
Phoenix Dam	San Joaquin																															
Pilot Creek	Sacramento		.65		.20														T.			T.						.16				1.01
Pinchot	Coast																															
Pine Crest	do		.05																								.82					0.87
Placerville	Sacramento		.02																													0.02
Point Lobos	Coast																		T.				.01	T.								0.01
Point Loma	do	.01	.01	.01					.01													.01				.06	T.	.04	.01	T.	.01	0.16
Point Reyes	do																		.03						T.							0.04
Pomona	do																											.08	.11			0.19
Porterville	San Joaquin																										.10					0.10
Priest Valley	Coast			T.	.10																					T.	.07	.14				0.21
Quincy	Sacramento						.20	.10		.10										.10			.10			T.	T.					0.60
Red Bluff	do								T.										.06			.03			.24	.14	.07					0.54
Redding	do	.08							T.	.06									.16						.23		.76	.16				1.45
Redlands	Coast																									T.	T.	.21				0.21
Reedley	San Joaquin																															0.00
Represa	Sacramento																															0.00
Rialto (near)	Coast	T.	T.								.03																					1.11
Rio Vista	Sacramento																									.09	.54	.45				0.00
Riverside	Coast	.01																														0.18
Rocklin	Sacramento																											.17				T.
Rohnerville	Coast						T.	.20												T.												1.06
Ruth	do		.38					.03											.25	.30				.15	T.	T.	.16					1.46
Sacramento	Sacramento									.11				T.					.46	.12		T.	.08	.17	T.	.08	.14					0.11
St. Helena	Coast																															0.25
Salinas	do	T.																	.01									.24				0.33
San Bernardino	do																											.33				0.39
San Diego	do			.03																						.01	.05	.33				0.09
San Francisco	do	T.																								.03	.01	.02				0.02
San Jacinto	do																		T.				.01	.01				.16				0.16
San Jose	do	.01											T.														T.					0.01
San Luis Obispo	do																										.59					0.59
San Mateo	do																									.02						0.02
San Miguel	do																															
San Miguel Island	Ocean																										.08	.12				‡0.12
Sanger	San Joaquin																										.05	.45				0.50
Santa Ana River	Coast																										T.					T.
Santa Barbara	do																									.25						0.25
Santa Clara	do	T.																									1.00					1.00
Santa Cruz	do			T.																							T.	.63				0.63
Santa Margarita	do																															0.05
Santa Monica	do																															
Santa Rosa	do							.05																								
Sausalito	do																															
Selma	San Joaquin																															
Seven Oaks	Coast																															
Shively	do							.21										.02		.58			.21			.08	.11					0.00
Sierra Madre	do																									.08	.20					0.11
Sierraville	Mount'n Lakes				.06	.10	.35																			.45		1.03				1.30
Sisquoc Ranch	Coast																															1.48
Sisson	Sacramento								.58																		.38					0.51
Soledad	Coast																		.46							.11	.94		.11			0.38
Sonora	San Joaquin	.18	T.																							T.	.10					2.20
Southeast Farallon	Ocean								.02																	T.						0.10
Spreckels	Coast																															0.18
Springville	San Joaquin	.30	.10	.15																												0.02
Squirrel Inn	Coast																															0.00
Stanwood	Sacramento	.68	.05	.02	.01								T.	.07													.10	.20				0.85
Stirling City	do		.10	.05					T.	T.														.02	.01	.40	.73					1.13
Stockton (S. H.)	San Joaquin																									T.	.78	T.	.28			1.92
Storey	do																															0.15
Suisun	Sacramento																															0.00
Sulphur Banks	do																															0.00
Summit	do	T.	T.		.05	T.		T.			T.												T.					.06				0.06
Susanville	Mount'n Lakes		T.	.02	.05		.14																					.27				0.27
Tamarack	Sacramento	.65	T.	.50	.52	1.10	T.	.20	1.30	T.	1.03	1.21										1.40	.15	.25	.16							0.05
Tehachapi	San Joaquin																					.35										2.17
Tehama	Sacramento																										35	.23				7.44
Tejon Rancho	San Joaquin																		.02									.42	.10			0.52
Three Rivers	do				T.																			.30	.13							0.45
Towle	Sacramento		.02	.03																							.37	.19				0.56
Tracy	San Joaquin																			.02							.40					0.47
Tulare	do																															0.00
Tustin (near)	Coast																										.80					0.80
Ukiah	do		T.																							.08		.03				0.11
Upper Lake	Sacramento		.01																.03				T.									0.03
																																0.01

TABLE 2.—*Daily precipitation for June, 1913. District No. 11*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
California—Contd.																																
Upper Mattole	Coast								.04					.06	.01	T.	T.		.02	.51			.08	.06			.01	.06	.01			0.86
Vacaville	Sacramento																											T.				T.
Valley Springs	San Joaquin																															0.00
Visalia	do																									T.	.28					0.28
Warner Springs	Coast																										.13	T.				0.13
Wasco	San Joaquin																															0.00
Watsonville	Coast			.03																						.07	.06					0.16
Weaverville	do	.04		T.				T.	.30								T.	.01	.03	.33		T.	.03	T.			.02	.15				0.93
Weitchpec	Klamath	T.	.04					T.	.10					.12					.06	.94		.08	.31				.31	.50				2.46
West Branch	Sacramento	.20																		.35				T.		.04	.86	.04				1.49
Westley	San Joaquin																															0.00
West Point	do																															
West Saticoy	Coast																															
Wheatland	Sacramento	T.							T.	.07										.02							T.	T.				0.09
Willows	do	T.							T.											.03						T.	.87	.02				0.92
Yorba Linda	Coast																								.03		.07					0.10
Yosemite	San Joaquin	.49	.04	.18	.09	.05	.70			.50													T.			T.	.95	.01				3.01

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for June, 1913. District No. 11, California.*

Date.	Lakeview, Oreg.		California.																							
			Alturas.		Barstow.		Brans-comb.		Brawley.		Colusa.		Eureka.		Fresno.		Independ-ence.		Los Angeles.		Mount Tamalpais.		Nevada City.		Porter-ville.		Red Bluff.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	77	45	86	43	94	58	80	46	96	64	89	58	58	51	90	67	73	48	64	55	65	49	83	54	68	58	95	69
2....	79	46	85	45	92	60	78	45	97	60	87	56	55	49	89	59	72	52	62	55	65	49	79	46	93	57	88	62
3....	77	46	86	42	90	54	81	45	96	67	87	56	54	50	90	61	80	50	64	55	69	55	81	47	92	63	90	62
4....	75	45	82	46	87	56	85	44	93	64	87	56	54	47	89	60	79	52	68	56	69	52	80	48	92	63	90	62
5....	76	43	85	42	88	54	80	45	95	64	89	57	56	45	91	59	78	54	69	55	68	57	80	50	94	61	92	66
6....	77	45	81	49	90	50	75	40	96	74	85	55	53	47	93	61	79	53	72	56	68	52	81	54	94	63	90	65
7....	71	50	80	52	91	54	70	39	98	63	79	51	64	49	87	54	81	50	70	55	58	48	75	46	91	60	79	52
8....	62	40	69	43	88	50	65	39	97	62	78	50	58	49	77	56	80	48	66	56	59	42	66	42	91	61	70	61
9....	55	36	60	41	75	48	70	35	86	51	79	49	56	47	72	53	68	56	65	54	51	41	67	45	74	54	72	52
10....	63	35	68	43	77	50	73	38	83	59	80	49	57	46	77	50	70	45	68	52	64	43	72	35	78	48	84	50
11....	71	34	77	38	87	51	75	40	91	61	86	49	60	50	86	56	82	45	72	53	71	52	79	34	87	56	89	58
12....	74	42	80	42	93	52	70	40	97	58	91	58	63	52	93	65	85	48	76	53	69	52	85	41	96	61	91	65
13....	67	49	73	46	97	60	71	38	98	72	87	55	60	50	89	60	88	54	71	57	55	45	73	44	94	60	82	63
14....	64	39	72	41	96	59	72	35	98	64	78	50	60	46	84	53	89	50	74	57	62	43	77	37	94	55	82	58
15....	69	41	75	32	95	60	71	37	98	64	84	54	61	48	88	56	87	56	74	57	64	48	79	36	94	54	85	58
16....	70	37	79	36	91	55	72	39	96	63	85	55	59	50	86	54	86	51	69	57	68	51	79	38	85	53	86	57
17....	72	39	79	38	95	51	60	39	97	75	86	57	61	48	89	58	86	51	72	56	65	47	77	41	92	54	84	62
18....	70	37	74	36	95	50	58	38	101	63	77	54	59	51	85	57	86	52	72	52	54	45	76	41	93	55	76	60
19....	55	37	65	37	91	56	64	45	103	64	76	54	62	51	82	57	86	55	77	56	60	44	71	46	93	54	74	56
20....	69	30	80	29	96	60	73	40	104	63	89	56	63	47	90	54	88	56	83	58	70	55	82	34	90	52	87	55
21....	71	42	79	43	101	63	73	45	107	67	89	65	65	54	96	60	92	58	85	59	71	57	84	44	98	55	88	67
22....	65	47	72	53	101	65	65	45	102	68	87	68	65	57	86	65	90	56	76	57	62	53	80	50	99	57	82	66
23....	65	43	71	52	90	64	66	43	100	62	85	60	64	57	87	61	88	58	74	58	62	52	77	54	93	59	86	64
24....	57	46	64	51	95	65	67	44	100	65	82	60	61	55	86	61	88	59	72	60	56	47	72	53	91	60	78	66
25....	58	41	64	45	85	60	63	38	95	69	80	60	61	52	79	57	81	55	66	60	55	46	65	48	89	56	75	58
26....	59	41	63	43	83	60	62	40	92	66	75	58	61	52	69	56	76	56	67	57	55	45	64	45	84	58	67	54
27....	53	39	58	43	82	58	61	41	90	66	73	55	61	55	77	54	71	48	70	57	58	46	66	40	81	56	72	56
28....	60	42	66	46	92	59	74	40	93	59	85	53	61	55	84	54	77	42	73	57	70	51	76	37	84	50	83	58
29....	68	38	77	39	93	58	78	44	100	64	90	55	62	56	93	60	82	48	90	61	78	60	86	44	96	53	91	64
30....	71	43	78	46	98	60	80	45	106	62	92	60	64	56	97	64	92	55	87	62	74	60	89	44	100	56	92	66
Mns..	67.3	41.3	74.3	42.7	90.9	56.7	71.1	41.1	96.8	64.1	83.9	55.8	59.9	50.7	86.0	58.1	82.0	52.0	72.3	56.4	63.8	49.6	76.7	43.9	90.0	56.7	83.3	60.4

Date.	California.																									
	Redlands.		Sacramento.		San Diego.		San Fran-cisco.		San Jose.		San Luis Obispo.		Santa Bar-bara.		Santa Rosa.		Sisson.		Stockton.		Summit.		Susanville.		Yosemite.	
	Max	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	69	50	76	57	63	57	59	51	75	53	67	52	60	54	67	52	81	46	81	57	58	40	.....	.....	80	29
2.....	71	53	81	54	63	58	60	51	74	56	66	54	59	54	68	52	80	50	81	54	59	40	.....	.....	82	30
3.....	74	56	80	54	65	56	61	51	75	55	67	54	62	55	69	50	80	49	83	54	64	42	.....	.....	78	30
4.....	71	56	81	53	66	58	61	51	76	54	62	54	62	56	74	48	78	45	84	56	58	40	.....	.....	79	30
5.....	73	53	80	53	66	58	59	50	77	53	62	53	61	55	76	47	74	44	85	56	56	41	.....	.....	80	30
6.....	81	52	75	52	66	60	55	50	71	51	66	53	60	57	72	49	77	51	83	54	57	43	.....	.....	80	30
7.....	82	51	76	49	65	59	61	51	68	51	66	52	60	50	72	49	75	46	75	50	57	43	.....	.....	79	29
8.....	75	53	70	52	63	58	59	51	67	52	66	50	64	53	74	42	66	45	70	55	57	38	.....	.....	78	26
9.....	67	53	69	48	64	58	59	51	65	42	60	52	66	50	72	36	67	42	68	50	48	34	.....	.....	76	30
10.....	71	51	77	48	65	57	61	50	73	46	63	44	66	48	77	37	65	42	80	49	48	33	.....	.....	65	22
11.....	82	45	84	52	65	56	64	50	78	45	68	44	68	45	78	42	72	43	85	52	62	36	.....	.....	79	25
12.....	87	50	86	58	67	57	62	50	77	48	77	44	70	50	83	48	79	48	87	57	66	44	.....	.....	80	30
13.....	85	53	74	53	66	58	62	52	71	53	78	50	65	49	71	45	66	31	74	55	64	40	.....	.....	84	30
14.....	87	55	79	49	66	58	65	52	71	44	72	44	65	55	78	40	66	37	80	51	58	42	.....	.....	83	30
15.....	85	54	78	51	68	58	61	51	70	42	72	46	68	51	79	41	63	36	81	51	61	42	.....	.....	80	28
16.....	90	53	82	52	67	58	65	52	77	46	72	48	66	50	80	43	64	38	82	53	61	42	.....	.....	82	28
17.....	85	52	79	54	66	58	66	53	75	48	75	48	69	50	74	42	67	50	80	54	60	42	.....	.....	80	29
18.....	85	50	70	52	68	58	66	55	73	55	66	54	72	50	72	42	65	42	75	53	60	45	.....	.....	81	28
19.....	87	49	76	54	70	57	66	55	72	54	75	48	78	49	74	51	53	33	77	54	54	35	.....	.....	85	29
20.....	93	43	88	58	77	57	70	55	80	46	89	60	86	52	89	35	71	52	88	53	66	42	.....	.....	85	30
21.....	96	57	91	59	67	60	73	56	84	51	91	60	80	57	88	45	71	40	90	60	67	39	.....	.....	87	28
22.....	89	55	78	60	68	60	64	55	77	57	85	55	68	55	79	45	72	51	80	63	60	41	.....	.....	87	29
23.....	80	56	82	58	67	58	67	54	78	59	76	52	68	58	77	45	68	47	81	62	61	42	.....	.....	81	34
24.....	80	56	74	56	66	60	63	55	72	58	70	52	65	60	79	55	64	45	84	63	55	38	.....	.....	80	36
25.....	66	58	73	55	66	60	63	54	70	57	67	55	68	52	77	49	63	42	76	57	52	40	.....	.....	71	33
26.....	66	56	70	55	67	59	64	55	69	54	63	55	63	60	74	39	66	43	73	56	48	35	.....	.....	61	29
27.....	68	54	73	54	70	59	67	54	71	52	65	50	70	57	74	44	63	41	75	55	46	31	.....	.....	62	28
28.....	79	55	82	53	69	60	69	54	80	48	72	50	75	52	81	46	60	42	85	53	57	32	.....	.....	80	33
29.....	95	53	91	59	75	60	72	54	87	49	87	55	86	57	89	47	73	43	91	57	64	39	.....	.....	80	33
30.....	97	55	93	60	79	60	71	52	83	51	87	57	82	57	93	48	74	48	91	59	65	39	.....	.....	87	29
Mns.....	80.5	53.0	78.9	54.1	67.3	58.3	63.8	52.5	74.5	51.0	71.7	51.5	68.4	53.3	77.0	45.1	69.4	43.7	80.8	55.1	58.3	39.3	.....	.....	79.1	29.5

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 12, COLUMBIA VALLEY.

EDWARD A. BEALS, District Editor.

A large high-pressure area appeared over the Canadian Northwest on the 5th, which moved slowly eastward to the lake region and then south to the east Gulf States. It was the dominating feature of the weather map for eight days, and its magnitude and slow movement, combined with abnormally low pressure over Alaska and the Aleutian Islands, prevented the offshoots from the north Pacific belt of high pressure from moving far enough north to cause the usual summer conditions in the Columbia Valley. Upper air movement was sluggish and under the influence of relatively low pressure in this valley showery conditions began on the 7th and persisted throughout the month.

The rainfall was the heaviest in a quarter of a century, and thunderstorms and so-called cloudbursts were of frequent occurrence in the mountains and semiarid sections of the district. Fortunately these storms took place in sparsely settled regions and the casualties and losses were small. The rains injured the first cutting of hay and seriously interfered with its harvest, so, where not cut, it became overripe and suffered deterioration on this account. The ripening cherries suffered from too much rain, which caused them to crack open and spoil just at the marketing time. The ranges were greatly benefited and new grass made a good growth over large areas that had been barren for many years. The ranges heretofore had been overgrazed, but now there is not enough stock in the country for the feed that is available. The flood in the Columbia River, although unusually high, did not do much damage. The stages were accurately forecast for about five days in advance, and everybody had plenty of time to place his movable property above the high-water mark. There were no serious interruptions to construction work, nor did the transportation interests suffer as much as might be expected from the unusual weather conditions.

TEMPERATURE.

Taking the district as a whole the mean temperature for the month was slightly above normal. In southwestern Idaho and southern Oregon it was much cooler than usual, the departures ranging from $-0.4°$ to $-4.4°$, and it was also somewhat cooler at scattered points in Washington and northern Oregon; elsewhere temperatures ranged from normal to nearly 5° above the June average. The Idaho mean temperature was the lowest recorded in June since 1908, and some freezing temperatures occurred at elevated stations in that State and at some points in Washington and Oregon. While the first week of the month was unusually warm for the season, the remainder of the month had many cool days, which brought the mean temperature to nearly normal.

The mean temperature, as determined from the records of 289 stations, was 60.5°, or 0.5° above normal. The highest temperature, 104°, was recorded on the 2d at Hanford, a station in southern Washington, at an elevation of 385 feet, and the lowest temperature, 21°, occurred on the 14th at Combs Flat, in central Oregon, at an altitude of over 4,000 feet. The greatest daily range in temperature was 57°, at Libby, Mont., at an elevation of 2,055 feet. The highest monthly mean, 73°, was recorded at Eltopia, in southeastern Washington, at about 600 feet elevation, and the lowest monthly mean, 50.2°, at Musick, in the mountains of southwestern Oregon at an altitude of 5,000 feet.

The following table shows for comparative purposes the mean temperature and departure from normal for the States of Oregon, Washington, and Idaho, and those portions of Montana and Wyoming in District No. 12, for the month of June during the last five years:

Years.	Oregon.		Washington.		Idaho.		Montana.		Wyoming.	
	Mean.	Departure.	Mean.	Departure.	Mean.	Departure.	Mean.	Departure.	Mean.	Departure.
1909	60.6	+1.1	61.0	0.0	61.6	+1.6	57.5	+0.9	53.6	+1.4
1910	59.0	−0.4	59.7	−1.5	61.7	+1.3	58.8	+0.2	54.4	+1.5
1911	58.9	−1.0	60.7	−0.7	61.5	+0.6	59.2	+2.4	54.4	+1.2
1912	60.8	+0.9	63.0	+1.5	62.5	+1.2	60.4	+3.3	52.5	+0.7
1913	59.7	+0.3	61.6	+0.7	61.2	−0.1	59.5	+1.6	53.3	+1.0

PRECIPITATION.

The precipitation was above the June average in practically every portion of the district. While it was comparatively dry during the greater part of the first decade, the remainder of the month was marked by unusually heavy rainfall in all sections, in some cases partaking of the nature of "cloudbursts," and breaking all records for June precipitation in Idaho and Oregon. The precipitation was most notably in excess in southwestern Montana, western Washington, and in northeastern and western Oregon, where it ranged from 1 to nearly 7 inches above the average. After the first week the precipitation was well distributed throughout the remainder of the month, there being an unusual number of days with rainfall during that period.

Snowfall to the amount of 1½ inches was recorded at Powell Butte, a station in central Oregon at an elevation of about 3,250 feet. The rapid melting of the snow by the high temperatures of the first week caused some apprehension regarding the water supply later in the season, but subsequent cooler weather checked the melting and at the close of the month all streams were carrying an ample flow for the needs of irrigation.

The average precipitation for the district as computed from the records of 408 stations was 2.92 inches, which is 1.73 inches more than normal. The greatest 24-hour

rainfall, 3 inches, occurred at Butte, Mont., at an elevation of 5,716 feet; this station also reported the greatest monthly amount, 8.86 inches. The least monthly amount, 0.21 of an inch, was recorded at Huntington, in eastern Oregon.

The average monthly precipitation with departure from normal for the month of June during the last five years is also shown in the following table for the States of Oregon, Washington, and Idaho, and for those portions of Montana and Wyoming in district No. 12:

Years.	Oregon.		Washington.		Idaho.		Montana.		Wyoming.	
	Mean.	Departure.	Mean.	Departure.	Mean.	Departure.	Mean.	Departure.	Mean.	Departure.
1909	0.66	−0.94	0.90	−0.96	0.71	−0.46	2.43	+0.31	1.09	+0.04
1910	0.97	−0.48	1.03	−0.56	0.22	−0.88	1.17	−1.29	0.16	−1.18
1911	1.36	−0.15	1.04	−0.68	2.45	+0.91	4.06	+1.60	2.43	+0.11
1912	2.30	+1.16	1.75	+0.37	1.40	+0.10	1.46	−0.69	1.96	+0.16
1913	3.10	+1.93	2.82	+1.42	2.87	+1.58	3.37	+1.52	3.36	+1.44

THE RIVERS.

The annual rise in the Columbia River continued during the month. The water had risen rapidly during the latter half of May and at the beginning of June was higher at most points than it had been for several years. The crest of the Columbia River flood came 15 days later than the crest of the Snake River flood, and this was fortunate for the riparian district below the confluence of the two streams. Had the two crests united the resultant flood would have been a serious one. As it was the stages exceeded any since 1903 at all Columbia River points and any since 1899 on the lower Snake River. The Snake River at Weiser was not as high as in 1910 and 1912, so the bulk of the flood water carried by the lower Snake must have come from the Salmon and Clearwater Rivers. The highest stage at Lewiston, Idaho, was 18.6 feet on the 1st, but the highest water of the season was recorded on the 29th of the preceding month. The flood crest in the Kootenai River passed Bonners Ferry on the 4th and 5th of June and the crest in the Pend Oreille River passed Newport on the 15th. The maximum stage at Wenatchee on the Columbia River was 46.9 feet on the 15th and 16th. At and below Kennewick the highest water of the season occurred a few days earlier, due to discharge from the Snake River. The maximum stage at The Dalles was 42 feet, recorded on the 12th. The locks at Cascade Locks were opened on June 24, at a gage reading of 28.8 feet, having been closed since May 30 on account of high water.

Backwater in the Willamette River maintained a stage at Portland that averaged 5.2 feet above the June normal and 7.9 feet above the 15-foot flood stage. The minimum stage was 20.9 feet on the 1st and 30th, and the maximum was 24 feet on the 8th, a maximum that has been equaled only three times in connection with the annual rise in the Columbia River.

The fisheries, pasturage, and warehouse interests were the ones most affected by the flood. Owing to ample warnings the loss of property was a comparatively small item, but loss due to suspension of business and the expense involved in moving or otherwise protecting property in flooded basements and warehouses was considerable.

The Willamette River was higher than usual for June, as the month in western Oregon was one of exceptionally heavy rainfall, particularly during the last two decades. Maximum stages occurred on the 18th and 19th above Portland, following the period of heaviest rainfall.

MISCELLANEOUS PHENOMENA.

Thunderstorms, in some instances accompanied by hail and sleet, were quite general in central and eastern Washington and Oregon and portions of Idaho, being unusually severe in the last-named State, where they caused some loss of life and property.

Frosts formed in exposed places on several dates at some of the more elevated stations in Oregon and freezing temperatures occurred at other points of high altitude in Idaho, but without causing material injury.

The prevailing winds were from a westerly direction, and there was somewhat less than the usual amount in Idaho. No maximum velocities above 45 miles an hour were reported from any station in the district.

The cooperative observer at Lakeside, Chelan County, Wash., reported, "There was a severe earthquake shock at 9.40 p. m. of the 25th, and also a lighter shock at 2 a. m. of the 26th."

A lunar halo was observed at Medford, Oreg., on the night of the 17th, and solar halos at Portland and Roseburg, Oreg., on several dates.

TORNADO IN WESTERN MONTANA.

By R. F. YOUNG, Section Director.

A storm which from reports of eyewitnesses appears to have been in the nature of a tornado occurred on June 28 in the Kootenai Valley between Libby and Eureka, Mont. The storm was first noticed in the form of a funnel-shaped cloud, at an elevation of about 300 feet above the ground, moving out of the mountains southwest of Libby, traveling in an easterly direction, and accompanied by a loud roaring sound. It followed the valley east, then northward toward Eureka. The whirling was plainly evident from the rotary movement of the débris that was carried by the storm. A large amount of timber was destroyed and some orchards in its path were badly damaged. Forest trees were uprooted, or in some cases twisted off 15 to 25 feet above the ground. Near Ronda, Mont., five empty freight cars and one car loaded with hay were blown from the track. Nearly all the windows in one side of the day coaches of a Great Northern passenger train that was caught in the storm were broken by the hail that accompanied the wind. Hailstones an inch and a quarter in diameter were picked up in the coaches. The path of the storm was about 300 feet wide, and its destructive effect was about 4 miles in extent. Evidence of its passage, however, were noticeable for a distance of 60 miles or more.

TABLE 1.—*Climatological data for June, 1913. District No. 12, Columbia Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Montana.																				
Anaconda	Deer Lodge	5,300	11	56.4	+ 1.1	79	19	34	15	37	3.78	+ 1.44	.....	0	17	6	18	6	.....	C. D. Demond.
Butte	Silver Bow	5,716	18	58.0	+ 2.0	81	19	42	12†	32	8.86	+ 6.99	3.00	0	12	3	14	13	nw.	J. R. Wharton.
Columbia Falls	Flathead	3,100	17	62.2	+ 4.8	89	7†	30	15	45	4.38	+ 1.30	1.12	0	16	9	12	9	sw.	J. M. Grist.
Como	Ravalli	3,700	4	62.2	.....	91	1	45	27	41	3.15	.....	0.70	0	17	10	11	9	.....	Hiram Platt.
Dayton	Flathead	.....	8	60.4	− 4.4	89	1	36	16	43	2.45	+ 0.08	0.50	0	8	15	2	13	.....	A. J. Ruechell.
Deer Lodge	Deer Lodge	4,529	1	.....	.....	.....	.....	.....	.....	.....	3.41	.....	1.14	0	14	6	19	5	.....	H. B. Grant.
East Anaconda	....do	5,500	7	57.2	.....	80	19	37	15	32	3.60	.....	1.51	0	17	6	18	6	s.	C. D. Demond.
Fortine	Lincoln	2,975	7	57.4	.....	87	1	28	15†	53	4.24	.....	1.05	0	15	7	11	12	sw.	Mike Petery.
Hamilton	Ravalli	3,575	10	61.2	+ 1.4	86	1	40	15	38	2.73	+ 0.87	0.84	0	16	11	2	17	n.	Hamilton Chamber of Commerce.
Hat Creek	Powell	6,000	3	.....	.....	.....	.....	.....	.....	.....	4.00	.....	0.91	0	20	4	14	12	e.	M. K. Landreth.
Haugan	Missoula	3,150	1	58.2	.....	87	2	29	15	51	2.26	.....	0.71	0	12	6	13	11	sw.	U. S. Forest Service.
Heron	Sanders	2,261	1	60.0	.....	89	7	34	17	49	3.48	.....	1.25	0	13	12	8	10	w.	E. Knott.
Kalispell	Flathead	2,965	14	60.7	+ 1.9	86	7	34	15	38	3.21	+ 1.47	1.70	0	16	9	16	5	w.	U. S. Weather Bureau.
Libby	Lincoln	2,035	3	60.6	+ 1.4	93	2	30	17	57	2.33	+ 0.55	0.47	0	13	12	7	11	.....	U. S. Forest Service.
Missoula	Missoula	3,225	34	61.9	+ 1.8	88	2	34	15	46	2.39	+ 0.13	0.43	0	17	8	4	18	.....	U. S. Weather Bureau.
Ovando	Powell	4,207	13	57.7	+ 3.3	83	1	32	15	48	4.05	+ 1.69	0.55	0	20	1	28	1	w.	S. B. Muchmore.
Philipsburg	Granite	5,275	9	57.3	.....	86	1†	33	15	47	4.95	.....	1.15	0	16	14[a]	9[a]	6[a]	sw.	G. T. Bramble.
Plains	Sanders	2,475	14	61.2	+ 2.8	86	2†	34	15	41	2.36	+ 0.70	0.51	0	15	4	23	3	sw.	James M. Self.
Pleasant Valley	Flathead	3,500	5	56.5	.....	82	1†	29	15	50	1.88	.....	0.50	0	14	8	3	19	w.	A. D. Stillman.
Polson	....do	2,920	5	62.0	.....	85	4	38	14	40	2.41	.....	0.70	0	7	.....	.....	.....	.....	F. P. Brown.
St. Ignatius	Missoula	2,700	7	58.4	.....	86	1†	28	6	52	3.42	.....	0.65	0	16	13	7	10	.....	U. S. Reclamation Service
Saltese	....do	3,600	8	.....	.....	.....	.....	.....	.....	.....	3.35	.....	0.52	0	13	9	0	21	w.	Martin Pixley.
Stevensville	Ravalli	.....	1	59.2	.....	87	1	36	15	42	3.43	.....	0.77	0	20	13	5	12	sw.	University Orchard Co.
Thompson Falls	Sanders	2,462	1	60.4	.....	88	1†	35	6†	48	2.18	.....	0.35	0	15	14	3	13	w.	U. S. Forest Service.
Trout Creek	....do	2,375	1	.....	.....	.....	.....	.....	.....	.....	2.10	.....	0.35	0	9	17	0	13	sw.	James Hylent.
Victor	Ravalli	3,414	....	61.8	.....	88	1†	39	15	43	3.20	.....	0.93	0	12	12	8	10	sw.	R. W. Fisher.
Willow Glen Stock Farm	Deer Lodge	5,064	2	57.4	.....	90	19	30	29†	47	.....	.....	.....	0	....	5	1	24	ne.	G. E. Luce.
Wyoming.																				
Afton	Lincoln	6,200	9	55.5	.....	81	21	33	1†	45	3.15	.....	0.50	0	12	9	11	10	.....	A. V. Call.
Alta	....do	6,500	3	52.6	.....	75	19	30	12	38	3.34	.....	0.46	0	20	7	8	15	sw.	Mrs. Lucy Brown.
Bechler River	Yellowstone Park.	6,500	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bedford	Lincoln	5,900	13	54.2	+ 1.0	78	21†	33	2	45	3.20	+ 1.44	0.70	0	12	14	8	8	w.	C. G. Heiner.
Moran	....do	6,770	1	.....	.....	86	15	31	12	51	3.19	.....	0.60	0	17	5	22	3	.....	U. S. Reclamation Service
Snake River	Yellowstone Park.	7,000	7	51.0	.....	75	16†	30	2	42	3.73	.....	0.57	0	19	10	12	8	sw.	U. S. Army.
Nevada.																				
San Jacinto	Elko	.....	8	57.0	.....	88	19	32	21	52	2.85	.....	1.12	0	14	2	18	10	n.	F. W. Marchant.
Idaho.																				
Albion	Cassia	4,650	10	58.6	− 1.3	86	21	34	21	52	2.96	+ 1.87	0.84	0	10	6	20	4	w.	C. E. Bocock.
Almo	....do	.....	3	.....	.....	.....	.....	.....	.....	.....	5.50	.....	1.40	0	8	19	3	8	.....	Wm. D. Cahoon.
American Falls	Power	4,341	21	.....	.....	.....	.....	36	21	.....	1.20	+ 0.17	0.24	0	10	18	12	0	ne.	Geo. Stoll.
Arrowrock	Boise	3,100	1	65.9	.....	96	7	40	20	44	2.22	.....	0.91	0	11	17	9	4	w.	U. S. Reclamation Service.
Blackfoot	Bingham	4,503	17	61.0	− 1.0	86	21	37	21	49	1.17	+ 0.31	0.32	0	11	8	18	4	sw.	E. A. Dowd.
Blackfoot Dam	Bannock	6,200	3	56.4	.....	85	22	33	30	46	3.74	.....	0.75	0	17	10	4	16	s.	S. C. Waddell.
Bogus Creek	Boise	4,200	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.82	0	15	0	28	2	.....	F. P. Ingraham.
Boise	Ada	2,739	27	65.0	− 1.0	89	2	45	20	34	1.64	+ 0.76	0.45	0	13	7	11	12	nw.	U. S. Weather Bureau.
Boise King	Elmore	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. W. Stevens.
Bonners Ferry	Bonner	1,850	6	58.8	.....	86	7	33	15	46	2.61	.....	0.72	0	10	14	6	10	sw.	W. H. Heideman.
Boulder Mine	Boise	4,800	3	.....	.....	.....	.....	.....	.....	.....	2.79	.....	0.60	0	13	14	7	9	.....	Patrick Moriarty.
Buhl	Twin Falls	3,800	6	63.3	.....	87	2	44	20	38	2.49	.....	0.95	0	11	8	19	3	w.	S. C. Orr.
Caldwell	Canyon	2,372	8	65.8	.....	95	9	39	20	44	1.95	.....	0.47	0	8	4	17	9	w.	Wm. J. Boone, D. D.
Caldwell Expt. Station	....do	.....	1	62.0	.....	85	17†	38	20	47	1.68	.....	0.48	0	6	.....	.....	.....	.....	C. B. Hampson.
Cambridge	Washington	2,651	17	64.4[a]	+ 0.6	92[a]	3†	40[a]	20	45[a]	3.13	+ 2.01	0.80	0	9	.....	.....	.....	sw.	C. H. Shepherd.
Cedar Creek Dam	Twin Falls	5,220	2	.....	.....	.....	.....	.....	.....	.....	3.98	.....	1.18	0	17	11	16	3	w.	Robert Hoffman.
Chesterfield	Bannock	5,424	16	57.6	+ 1.4	83	2	35	1†	47	4.54	+ 3.21	0.79	0	17	3	23	4	sw.	C. S. West.
Clarks Fork	Bonner	2,084	1	59.7	.....	86	7	40	17	40	2.64	.....	0.41	0	14	11	11	8	.....	Wm. Potter.
Clyde	Custer	6,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. L. Sutcliffe.
Coeur d'Alene	Kootenai	2,157	18	63.3	+ 2.4	96	7	40	15†	43	4.45	+ 2.96	0.82	0	16	.....	.....	.....	.....	J. H. O'Rourke.
Council	Adams	3,059	1	63.6[b]	.....	93[b]	2	40[b]	16	40[b]	5.02	.....	1.85	0	13	.....	.....	.....	.....	F. L. Featherston.
Culdesac	Nez Perce	1,520	4	63.8	.....	92	1	42	6†	44	2.29	.....	0.40	0	14	12	16	2	.....	Mrs. B. B. Caldwell.
Deary	Latah	2,854	1	.....	.....	.....	.....	.....	.....	.....	4.54	.....	1.00	0	....	.....	.....	.....	sw.	W. J. Davis.
Dent	Clearwater	1,350	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Emil Schuessler.
Driggs	Fremont	6,097	6	54.1	.....	77	19†	31	21	46	2.63	.....	0.43	0	13	4	9	17	sw.	W. H. Durrant.
Emmett	Canyon	2,350	6	68.0	.....	95	18	42	20	41	1.67	.....	0.50	0	8	4	17	9	w.	U. S. Forest Service.
Forney	Lemhi	6,000	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. B. Merritt.
Garnet	Elmore	2,575	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. A. Kenison.
Geneva	Bear Lake	6,171	4	.....	.....	.....	.....	.....	.....	.....	1.23	.....	0.62	0	4	20	6	4	.....	F. W. Boehme.
Glenns Ferry	Elmore	2,569	4	67.8	.....	97	3	40	20†	52	1.38	.....	0.37	0	9	15	8	7	.....	I. E. Perkins.
Gooding	Gooding	3,572	3	63.0	.....	91	2	39	21	48	0.91	.....	0.34	0	10	6	9	15	w.	John Krall, jr.
Grace	Bannock	5,400	6	62.4	.....	92	1†	39	29	52	.....	.....	0.40	0	....	9	6	15	nw.	E. W. Joy.
Grand Forks	Shoshone	3,000	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John E. Keach.
Grandview	Owyhee	2,300	3	68.4	.....	97	18	42	21	45	0.97	.....	0.29	0	7	15	7	8	sw.	H. E. Hanna.
Grimes Pass	Boise	5,200	3	.....	.....	.....	.....	.....	.....	.....	2.99	.....	0.49	0	17	.....	.....	.....	.....	Jos. M. Clarke.
Guffey	Owyhee	2,381	4	69.6	.....	96	2	47	12	42	1.27	.....	0.26	0	10	21	9	0	e.	Fred Perry.
Hailey	Blaine	5,347	10	58.2	− 1.2	83	3	36	20	42	3.15	+ 2.34	0.52	0	13	2	14	14	sw.	U. S. Forest Service.
Hollister	Twin Falls	4,350	1	60.4[d]	.....	86[d]	21	38[d]	20	46[d]	2.40	.....	0.90	0	12	.....	.....	.....	w.	J. W. Bouten.
Hotspring	Owyhee	2,590	7	66.0	.....	93	2†	43	20	41	1.10	.....	0.40	0	7	7	16	7	.....	J. M. Waterhouse.
Idaho Falls	Bonneville	4,742	18	61.5	+ 2.2	87	19	42	4	42	2.99	+ 1.55	0.74	0	13	11	10	9	ne.	Dr. T. M. Bridges.
Indian Cove	Owyhee	.....	.....	66.8	.....	95	2	40	20†	51	2.16	.....	0.76	0	14	16	3	11	e.	Capt. O. M. Carter.
Indian Valley	Adams	2,999	4	.....	.....	.....	.....	.....	.....	.....	2.88	.....	1.00	0	10	14	7	9	n.	A. M. Henke.
Irwin	Bonneville	6,500	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Eva Buckland.
Kellogg	Shoshone	2,305	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. McM. Huff.
Kilgore	Fremont	.....	....	51.1[c]	.....	75[c]	2	31[c]	12†	43[c]	6.02	.....	0.90	0	18	.....	.....	.....	nw.	W. H. McCormick.
Kirkham	Boise	4,200	3	.....	.....	.....	.....	.....	.....	.....	2.84	.....	0.76	0	9	5	16	9	.....	Mrs. Josie B. West.
Kooskia	Idaho	1,261	4	63.7	.....	92	1	40	6	47	3.57	.....	0.80	0	11	8	12	10	.....	U. S. Forest Service.
Lakeview	Bonner	2,250	15	59.8	+ 0.5	85	2	40	9	38	3.10	+ 1.14	0.56	0	12	10	3	17	sw.	E. D. Faust.
Landore	Adams	5,300	8	52.2	.....	78	1†	32	19†	38	7.11	.....	1.54	0	18	9	12	9	.....	Mrs. Emma L. Brown.
Leadore	Lemhi	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tom Keating.
Lewiston	Nez Perce	757	19	66.6	− 2.5	95	1	47	15	41	3.78	+ 2.74	1.01	0	13	10	8	12	ne.	U. S. Weather Bureau.
Little Camas	Elmore	5,000	3	.....	.....	.....	.....	.....	.....	.....	2.37	.....	0.34	0	13	0	10	20	w.	Solon McCoy.

TABLE 1.—*Climatological data for June, 1913. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Idaho—Continued.																				
Loon Creek	Custer	6,000	3	52.6	.....	81	4	28	20	48	2.78	.....	0.73	0	19	2	4	24	sw.	Mrs. Mary Williams.
Mackay	....do	5,897	5	56.2	.....	77	16†	38	24	38	2.30	.....	0.80	0	11	12	12	6	nw.	U. S. Forest Service.
Meridian	Ada	2,657	2	65.5	.....	92	2†	42	15†	40	2.28	.....	0.54	0	13	7	11	12	nw.	A. W. Garrett.
Mesa	Adams	3,275	2	63.0	.....	90	2	42	25	33	.....	.....	.....	0	6	6	0	24	n.	I. S. Carter.
Middle Fork	Idaho	1,397	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Jos. McGhee.
Milner	Twin Falls	4,110	9	63.6	+ 2.0	89	17	42	11	42	2.06	+ 0.74	0.59	0	9	4	24	2	w.	J. K. Young.
Moore	Blaine	5,700	12	54.9	− 1.4	76	1†	33	21	36	2.15	+ 0.93	0.82	0	14	15	10	5	sw.	Chas. B. Lemon.
Moscow	Latah	2,748	20	59.4[a]	+ 0.5	85[a]	8	41[a]	5†	33[a]	3.20	+ 1.78	0.46	0	12	.....	.....	.....	w.	University of Idaho.
Mountainhome	Elmore	3,150	7	63.4	.....	92	17†	37	20†	53	1.66	.....	0.55	0	12	6	10	14	.....	Mrs. Ellen Manion.
Murtaugh	Twin Falls	.....	6	61.6[d]	.....	86[d]	2	39[e]	21	43[d]	1.72	.....	0.75	0	4	.....	.....	.....	w.	J. E. Steinour.
New Meadows	Adams	3,950	8	56.3	.....	86	1	28	21	48	3.38	.....	0.61	0	14	8	17	5	s.	Lee Highley.
Nezperce	Lewis	3,082	3	58.5	.....	86	2	36	15	42	3.68	.....	0.82	0	17	13	6	11	.....	P. Mitchell.
Oakley	Cassia	4,700	19	61.6	− 0.8	90	21	30	11	46	3.01	+ 1.99	0.90	0	8	5	11	14	.....	John Adams.
O'Hara Bar	Idaho	1,557	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. D. Agnew.
Orofino	Clearwater	1,027	8	63.6	.....	93	1†	40	6	48	4.31	.....	0.80	0	14	11	18	1	.....	Geo. Alteneder.
Paris	Bear Lake	5,946	18	55.4	− 0.3	82	16†	29	1	49	3.42	+ 2.56	0.87	0	8	7	18	5	w.	John Norton.
Payette	Canyon	2,159	21	65.6	− 0.4	93	2	39	20	43	3.00	+ 2.21	0.60	0	11	7	10	13	n.	E. F. Allen.
Pierson	Custer	7,000	4	50.2	.....	74	5	24	15	44	2.93	.....	0.39	0	13	13	3	14	s.	D. P. Clarke.
Pleasant Valley	Ada	3,000	5	63.8	.....	93	18	35	20	46	1.60	.....	0.37	0	11	12	6	12	nw.	C. E. Friedrich.
Pocatello	Bannock	4,483	13	62,9	− 1.2	86	21	42	11	40	1.96	+ 0.97	0.65	0	11	4	14	12	se.	U. S. Weather Bureau.
Pocatello Nursery	....do	5,396	6	59.0[e]	.....	88[e]	15	36[e]	12	48[e]	2.69	.....	.....	0	13	.....	.....	.....	sw.	Mrs. Fannie E. Say.
Poplar	Bonneville	5,500	3	60.2	.....	83	2†	37	12	42	2.85	.....	0.63	0	12	6	18	6	sw.	C. M. Lawrence.
Porthill	Bonner	1,665	23	59.4	− 0.2	80	3†	36	15	37	1.64	− 0.08	0.22	0	14	13	8	9	sw.	H. A. French.
Priest River Experiment Station:																				
No. 1	....do	2,500	1	59.4	.....	88	1	37	15	42	3.83	.....	0.87	0	17	12	5	13	se.	D. R. Brewster.
No. 2	....do	2,500	1	60.3	.....	88	1†	36	15	46	3.38	.....	0.72	0	15	13	5	12	sw.	Do.
No. 3	....do	.....	1	58.1	.....	88	2†	30	15	54	3.31	.....	0.73	0	14	13	5	12	sw.	Do.
Pyle Creek	Boise	3,100	3	.....	.....	.....	.....	.....	.....	.....	3.03	.....	0.96	0	15	14	11	5	s.	P. V. Smith.
Richfield	Lincoln	4,306	3	61.2	.....	88	2	39	20†	46	1.94	.....	0.43	0	12	3	22	5	sw.	Idaho Irrigation Co.
Rogerson	Twin Falls	.....	....	58.5[d]	.....	81[d]	23	37[d]	11	42[d]	4.32	.....	1.98	0	12	.....	.....	.....	.....	J. S. Bussell.
Roseberry	Boise	4,872	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. T. P. Graham.
Roseworth	Twin Falls	4,650	2	.....	.....	.....	.....	.....	.....	.....	2.87	.....	1.06	0	14	0	16	14	sw.	D. B. Hartwell.
Rupert	Minidoka	4,204	6	61.6	.....	86	2	40	22†	45	2.18	.....	0.53	0	9	19	6	5	sw.	Will Parry.
St. Anthony	Fremont	4,968	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Heber C. Sharp.
St. Maries	Kootenai	2,263	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. S. Turnbull.
St. Michaels Priory	Idaho	3,811	....	57.0	.....	80	2	40	20	25	4.54	.....	0.77	0	16	5	10	15	nw.	Rev. Father Berthold, O.S.B.
Salmon	Lemhi	4,040	7	60.2	.....	89	6	37	15	45	3.38	.....	0.89	0	20	8	14	8	w.	E. K. Abbott.
Sandpoint	Bonner	2,086	2	60.9[a]	.....	88[a]	2	35[a]	15	44[a]	3.76	.....	1.10	0	11	13	6	11	se.	S. M. Moore.
Sheep Hill	Boise	5,000	3	.....	.....	.....	.....	.....	.....	.....	3.12	.....	0.74	0	13	.....	.....	.....	.....	C. M. Gardner.
Shoshone	Lincoln	3,968	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Zell Truman.
Silver City	Owyhee	6,280	5	.....	.....	.....	.....	.....	.....	.....	3.42	.....	0.76	0	14	4	10	16	.....	Russell Stoddard.
Soldier Creek	Blaine	5,755	2	54.2	.....	79	15	33	20†	43	3.09	.....	0.88	0	13	9	8	13	nw.	J. E. Minear.
Spirit Lake	Kootenai	2,560	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. C. Krause.
Springfield	Bingham	4,420	4	62.4	.....	88	21	39	12	45	1.96	.....	0.30	0	11	10	12	8	sw.	Mrs. W. A. Edwards.
Spring Hill	Ada	3,607	....	64.4	.....	90	18	42	20	34	2.29	.....	0.49	0	10	9	9	12	nw.	R. G. Lyons.
Sugar	Fremont	4,892	5	59.1	.....	82	3†	35	21	39	3.25	.....	0.66	0	13	9	10	11	sw.	Utah-Idaho Sugar Co.
Sunnyside	Elmore	3,500	3	69.2	.....	96	23†	37	10	53	.....	.....	.....	0	6	.....	.....	.....	nw.	Col. M. W. Wood.
Tripod Mountain	Boise	4,300	3	.....	.....	.....	.....	.....	.....	.....	3.80	.....	1.07	0	8	12	8	10	.....	Mrs. Verna Paddock.
Twin Falls	Twin Falls	3,825	7	62.8	.....	91	2	39	21	47	2.54	.....	0.75	0	10	2	22	6	sw.	J. A. Waters.
Vernon	Fremont	5,050	14	57.0[e]	+ 0.2	85[e]	14	34[e]	12	41[e]	2.62	+ 1.13	0.52	0	13	.....	.....	.....	sw.	A. M. Slatery.
Wallace	Shoshone	2,728	5	59.4	.....	87	7	34	15	45	4.17	.....	0.75	0	14	.....	.....	.....	w.	U. S. Weather Bureau.
Weiser	Washington	2,114	1	68.4	.....	99	18	45	12†	47	3.48	.....	1.01	0	11	2	10	18	se.	J. W. Lapish.
Wendell	Gooding	3,400	4	64.4	.....	91	2	41	21	45	2.04	.....	0.65	0	11	8	18	4	w.	Chas. L. Dingler.
Weston	Franklin	4,460	14	60.9	+ 0.3	88	22	39	30	46	2.95	+ 1.85	0.63	0	12	13	6	11	sw.	Wm. T. Chatterton.
Washington.																				
Aberdeen	Chehalis	162	22	58.8	+ 2.4	81	1	40	6†	38	6.40	+ 2.96	1.45	0	16	14	6	10	w.	H. A. Benham.
Anacortes	Skagit	60	19	58.2	.....	76	1	42	4†	31	2.28	+ 1.16	0.42	0	14	8	17	5	.....	Douglass Allmond.
Anatone	Asotin	2,800	....	55.9	.....	83	7	33	15	40	4.34	.....	0.90	0	13	10	15	5	sw.	W. A. Hamilton.
Baker	Skagit	390	7	60.2	.....	84	2	38	15	38	3.80	.....	0.60	0	14	8	6	16	.....	R. M. White.
Bellingham	Whatcom	60	18	60.2	+ 2.0	79	2	43	10	31	3.13	+ 1.55	0.84	0	11	10	13	7	.....	Sanford B. Mayhew.
Bellingham, near	Whatcom	107	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Bureau of Plant Industry.
Blaine	Whatcom	57	16	57.6	+ 0.2	74	3	38	6	32	2.77	+ 0.59	0.90	0	14	9	15	6	sw.	John W. Sheets.
Blewett	Chelan	2,200	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John Burmeister.
Bremerton	Kitsap	40	15	.....	.....	.....	.....	.....	.....	.....	2.04	+ 0.63	0.58	0	9	.....	.....	.....	.....	U. S. Navy Yard.
Brewster	Okanogan	1,620	3	64.6	.....	90	1†	41	15	35	2.02	.....	0.41	0	12	10	17	3	sw.	Mrs. H. F. Bertram.
Buckley	Pierce	685	....	58.8	.....	84	2	40	6	36	4.35	.....	0.72	0	21	5	7	18	sw.	G. C. Sears.
Bumping Lake	Yakima	3,400	2	51.2	.....	82	1	32	13	45	1.70	.....	0.30	0	10	10	4	16	.....	U. S. Reclamation Service.
Cedar River	King	535	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. Landsburg.
Centralia	Lewis	212	20	60.6	+ 1.3	89	2	35	5	45	3.42	+ 1.28	0.94	0	12	3	18	9	s.	I. S. Turner.
Clearbrook	Whatcom	140	10	57.6	+ 0.2	79	1†	35	6	42	3.58	+ 1.46	0.90	0	12	5	17	8	w.	George Gibbs.
Cle Elum	Kittitas	1,930	4	57.2	+ 0.9	91	1	33	15	53	0.98	+ 0.04	0.37	0	9	17	10	3	sw.	J. A. Balmer.
Colfax	Whitman	2,300	24	60.8	+ 1.6	93	2	34	6	49	3.28	+ 2.27	0.64	0	12	17	3	10	n.	I. B. Doolittle.
Colville	Stevens	1,635	13	62.2	0.0	95	1	35	15	53	4.35	+ 2.87	1.28	0	15	11	6	13	sw.	W. L. Sax.
Conconully	Okanogan	2,300	13	60.2	+ 0.3	84	1†	36	15	39	3.07	+ 1.68	0.82	0	15	10	11	9	.....	Wm. Baines.
Coulee City	Grant	2,400	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. E. Jolly.
Cowiche	Yakima	1,874	2	63.9	.....	91	2	40	14	37	0.86	.....	0.28	0	8	13	15	2	nw.	U. S. Reclamation Service.
Darrington	Snohomish	567	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. N. C. Rhoads.
Davenport	Lincoln	2,450	4	60.8	.....	89	1	36	5	42	3.91	.....	0.93	0	10	15	10	5	.....	J. L. Thayer.
Dayton	Columbia	1,700	27	62.8	+ 0.3	89	1	34	21	42	3.99	+ 2.85	1.00	0	13	9	19	2	sw.	W. W. Hendron.
Deer Park	Spokane	2,050	2	59.1	.....	90	2	31	15	48	2.31	.....	0.58	0	12	20	4	6	s.	Robert Allison, jr.
Detroit	Mason	30	5	60.4	.....	87	1	36	7	43	1.97	.....	0.43	0	12	8	15	7	sw.	Walter O. Eckert.
Dixie	Walla Walla	.....	4	.....	.....	.....	.....	.....	.....	.....	5.88	.....	1.89	0	15	7	8	15	sw.	T. Z. Andrews.
Douglas Lake	Skagit	440	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Michael Pecovitch.
Dryden	Chelan	960	3	.....	.....	.....	.....	.....	.....	.....	1.41	.....	0.43	0	9	22	5	3	nw.	Wenatchee Valley Gas & Electric Co.
Duckabush	Jefferson	380	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. G. Newman.
Ellensburg	Kittitas	1,571	25	61.9	+ 1.4	92	1	36	17	52	1.07	+ 0.41	0.30	0	8	18	6	6	nw.	R. Lee Barnes.
Eltopia	Franklin	598	....	73.0[e]	.....	103[e]	2	45[e]	5	48	.....	.....	.....	.....	.....	.....	.....	.....	.....	Frank O. Young.
Forks	Clallam	480	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. H. Palmer.
Fort Simcoe	Yakima	1,427	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Richard Newmark.
Gerome	Stevens	1,200	1	62.8	.....	93	2	39	5†	47	2.87	.....	0.46	0	13	9	19	2	.....	W. W. King.

TABLE 1.—*Climatological data for June, 1913. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Washington—Con.																				
Goat Lake	Snohomish	2,900	4								3.61		0.64	0	12					C. M. Mackintosh.
Gold Basin	do	1,360	2	56.6		83	1	34	5	41	6.22		1.19	0	16	14	0	16	sw.	U. S. Forest Service.
Gold Creek	Yakima	2,600	4								1.80		0.60	0	4	14	7	9	w.	J. W. Anderson.
Goldendale	Klickitat	1,600	7	62.5		95	1	40	14	45	1.20		0.35	0	9	5	23	2	w.	Klickitat County Abstract Co.
Granite Falls	Snohomish	397	10								4.54	+ 0.93	0.73	0	19	9	6	15	nw.	C. H. Cleaver.
Grays River	Wahkiakum																			A. B. Martin.
Hanford	Benton	385		70.6		104	2	42	5	55	1.11		0.65	0	4	8	21	1	sw.	Francis Lee Bash.
Hatton	Adams	1,100	8	64.7		101	1	37	5†	53	2.04		0.71	0	5	7	8	15	sw.	Dr. A. V. Marion.
Huntsville	Columbia	1,400	5								3.02		0.82	0	7					Sarah J. Hill.
Irene Mountain	Okanogan	2,700	4								2.99		0.42	0	14	8	6	16	s.	Mrs. Theo. Wheeler.
Kennewick	Benton	368	18	70.0[a]	+ 0.7	101[a]	1	45[a]	6	51[a]	1.22	+ 0.92	0.73	0	6					R. E. Reed.
Kent	King	53		60.8		86	2	37	6	43	2.99		0.68	0	12	10	5	15	s.	A. O. Jeffries.
Kettle Falls	Stevens	1,265	4	62.8		92	1†	40	15	46	3.06		0.80	0	17	10	12	8		Harry H. Cole.
Kiona	Benton	430	7	67.4		98	2	43	6	47	0.70		0.54	0	2	15	12	3	sw.	Dr. F. S. Hedger.
Kosmos	Lewis	775	7	60.0		90	1	37	6	46	4.02		0.95	0	16	8	22	0	ne.	J. A. Ulsh.
La Center	Clarke	250	16	58.6	− 0.7	86	1	39	6	40	5.14	+ 2.92	1.12	0	16	10	17	3	sw.	Joseph Brothers.
La Crosse	Whitman	1,400	4	63.0		91	1†	34	6	50	1.89		0.65	0	9	13	10	7	sw.	M. E. Schreck.
Lake Clealum	Kittitas	2,171	4	55.0		84[a]	1	35[a]	15	43[a]	0.87		0.34	0	7	5	9	16	nw.	U. S. Reclamation Service.
Lake Kachess	do	2,235	5	56.8		86	1	36	15	45	1.14		0.46	0	8	8	7	15	w.	U. S. Reclamation Service.
Lake Keechelus	do	2,479	5								2.39		0.40	0	13	7	12	11	w.	U. S. Reclamation Service.
Lakeside	Chelan	1,116	22	66.4	+1.0	92	2	45	14†	37	0.86	+ 0.06	0.20	0	9	8	21	1	w.	W. H. Van Meter.
Laurel	Klickitat	1,900	4								1.44		0.48	0	8	10	19	1	w.	Mrs. Minnie E. Strout.
Laurier	Ferry	1,644	3	62.5		90	1†	35	15	48	3.23		0.81	0	16	2	10	18	s.	Mrs. J. S. Myers.
Lone Tree	Chehalis	9	4	57.4		69	17	48	5†	18	4.74		0.95	0	19	8	18	4	nw.	U. S. Engineer Corps.
Longmires Springs	Pierce	2,800	2																	National Park Ranger.
Lost Creek	Okanogan	3,125	4								2.88		0.90	0	11	7	12	11		P. H. Leese.
McConihe	Grant	1,072	2	67.6		97	1†	42	5	46	1.38		0.70	0	9	15	11	4	sw.	L. F. McConihe.
McCumbers Ranch	Yakima	2,182	3								1.25		0.50	0	4	10	19	1	sw.	Mrs. Mary McCumber.
Moses Lake	Grant	1,070	2								1.15		0.40	0	7	24	5	1		H. M. Flemming.
Mottinger	Benton	307	13	68.2	− 0.9	96	2	48	5†	39	0.73		0.21	0	6	22	4	4	w.	G. H. Mottinger.
Mount Pleasant	Clallam	500	2	54.6		76	1	38	5	31	1.91		0.93	0	11	10	8	12	nw.	Wm. M. Dorr.
Moxee	Yakima	1,000	21	66.4	+ 1.8	98	2	37	14	49	0.99	+ 0.35	0.42	0	9	16	10	4	w.	H. B. Scudder.
Newport	Stevens	2,400	3	57.2		90	1	33	6	51	3.75		1.10	0	16	10	11	9		Chas. M. Talmadge.
North Head	Pacific	211	11	55.4	+ 0.4	64	20	48	5	12	5.14	+ 3.37	0.80	0	17	7	10	13	nw.	U. S. Weather Bureau.
North Sundale	Klickitat		4	67.4		95	1†	40	18	38	0.60		0.21	0	6					Ruth J. Shepard.
Northport	Stevens	1,350	4	63.3	+ 2.4	92	1†	40	14	47	4.30	+ 2.48	0.65	0	19	8	17	5		W. F. Case.
North Yakima	Yakima	1,070	4	66.3		94	2	40	14	36	0.78		0.24	0	10	17	6	7	nw.	Albert Bender.
Odessa	Lincoln	1,540	10	63.9		93	1	40	6†	48	2.14		0.97	0	8	9	20	1	sw.	H. W. Rieke.
Olga	San Juan	50	23	57.0	+ 0.4	70	1	44	10	20	2.58	+ 1.20	0.72	00	10	10	13	7	sw.	Cecil S. Willis.
Olympia	Thurston	45	35	60.4	+ 1.3	89	2	37	5	48	3.24	+ 1.54	0.64	0	14	11	5	14	sw.	M. O'Connor.
Omak	Okanogan	850	4	66.0		97	1†	39	16	50	2.89		0.72	0	11	15	8	7	s.	Saint John Umbrite.
Oroville	do	922	3								3.00									M. C. Jackman.
Peola	Garfield	5,000	4								6.22		1.06	0	17	15	5	10	sw.	Samuel Gruell, Sr.
Pomeroy	do	1,500	21	62.4	− 1.6	89	1†	43	15	40	3.02	+ 2.22	0.50	0	12	7	15	8	w.	Peter McClung.
Port Crescent	Clallam	259	18	53.2	− 0.2	74	1	34	16	31	2.41	+ 0.58	0.60	0	14	3	15	12	w.	U. S. Weather Bureau.
Port Townsend	Jefferson	80	23	57.0	− 0.7	74	1	42	4	22	1.83	+ 0.32	0.65	0	10	10	3	17	se.	Frank Plummer.
Prosser	Benton	661		67.4		98	1†	43	14	47	0.75		0.34	0	4	10	15	5	w.	E. L. Capps.
Pullman	Whitman	2,550	21	63.8	+ 4.3	88	1	45	5	36	2.87	+ 1.67	0.71	0	15	12	11	7	sw.	State Agricultural College.
Queets River	Jefferson	16	2	56.8		74	18	40	6	28	7.13		1.19	0	15	8	9	13	sw.	C. A. Bullard.
Quiniault	Chehalis	300	6	58.8		86	1	39	7	42	8.43		2.00	0	14	8	19	3	w.	A. V. Higley.
Reardan	Lincoln	2,510	13	60.9	+ 1.5	84	2	36	16	39	2.58	+ 1.71	0.40	0	11	6	4	20	sw.	C. B. Shoemaker.
Republic	Ferry	2,628	13	59.0	+ 0.9	89	1	30	17	47	3.01	+ 1.24	0.50	0	17	10	7	13	s.	G. B. Stocking.
Rex Creek	Chelan	1,135	6	61.2[j]		86[j]	1	42[j]	15	38[j]	0.96		0.32	0	5				nw.	J. W. Nicol.
Ritzville	Adams	1,825	14								2.00	+ 1.49	0.80	0	9					Agent, N. P. Ry. Co.
Robertsville	Klickitat																			R. R. Couger.
Rock Lake	Whitman	1,910	7								3.57		0.78	0	15					H. C. Melcher.
Rosalia	do	2,425	21	61.2	+ 2.8	87	1†	40	15	37	3.59	+ 2.59	0.80	0	14	12	11	7	sw.	Hans Mumm.
Russells Ranch	Yakima	2,870	4								1.48		0.32	0	12	11	10	9	w.	Mrs. Adella Russell.
Seattle	King	208	22	59.5	− 0.6	81	2	47	15	27	1.71	− 0.01	0.32	0	14	7	11	12	s.	U. S. Weather Bureau.
Sedro-Woolley	Skagit	38	16	59.0	− 0.4	84	2	36	10	40	4.27	+ 1.64	0.81	0	20	10	12	8		Mrs. H. L. Devin.
Sixprong	Klickitat	1,240	6	69.1		97	1†	40	13	41	1.08		0.51	0	8	18	7	5	sw.	C. E. Comstock.
Skagit Power Dam	Whatcom	510	3	60.4		91	1	39	5	46	3.19		0.70	0	15	13	5	12		Skagit Power Co.
Snohomish	Snohomish	55	19	60.2	+ 1.1	85	2	39	5†	40	2.97	+ 0.53	0.68	0	10	16	8	6	w.	James Bylling.
Snoqualmie Falls	King	667	14	62.4[b]	+ 2.6	89[c]	2	40[c]	6	44[c]	4.22	+ 1.50	0.80	0	17	12	1	17		O. N. Wiswell.
Snoqualmie Pass	King	3,000	4																	R. E. Chadwick.
Snyders Ranch	Okanogan	2,200	4	57.5		92	1	30	15	55	2.57		0.47	0	8	9[a]	17[a]	3[a]	nw.	G. M. Snyder.
South Bend	Pacific	140	18	55.6	− 1.6	79	1	38	6	33	5.44	+ 1.99	1.23	0	20	15	5	10	w.	Mrs. Winifred Buckingham.
Spokane	Spokane	1,943	32	63.2	− 0.2	90	2	45	15	39	3.01	+ 1.40	0.72	0	13	8	4	18	s.	U. S. Weather Bureau.
State University	King	170	4	60.0		82	2	48	6	28	1.84		0.34	0	12	8	6	16	sw.	University of Washington.
Stokes Ranch	Okanogan	2,670	4								2.22		0.43	0	11	9	20	1	sw.	Charles W. Gunn.
Sullivan Lake	Pend Oreille										4.57		0.69	0	18					U. S. Forest Service.
Sumner	Pierce	77	5	59.6		86	2	37	6	44	3.69		0.55	0	16	7	10	13	sw.	H. E. Thompson.
Sunnyside	Yakima	740	18	66.4	+ 1.0	96	2	40	14	45	0.48	+ 0.06	0.27	0	5	11	11	8	nw.	U. S. Reclamation Service.
Tacoma	Pierce	213	27	59.7	+ 0.3	82	2	45	16	29	2.16	+ 0.03	0.44	0	14	4	14	12	n.	U. S. Weather Bureau.
Tatoosh Island	Clallam	86	28	54.7	+ 1.7	65	22	45	16	15	6.74	+ 2.56	1.53	0	16	5	11	14	sw.	U. S. Weather Bureau.
Tieton Canyon	Yakima	2,313	4																	U. S. Reclamation Service.
Touchet	Walla Walla	556	6	65.9		97	2	42	6	46	1.69		0.53	0	9	13	9	8	sw.	D. W. Dorrance.
Touchet Ridge	Columbia	2,500	4								3.02		1.00	0	16	14	10	6	sw.	Mrs. Maude E. Bernard.
Trinidad	Douglas	900	9	69.2		97	1	45	14	37	0.84		0.35	0	7	21	6	3	nw.	J. C. Wheeler.
Vancouver	Clarke	100	38	62.4	+ 0.2	89	1	42	10	38	3.49	+ 1.66	0.95	0	16	7	10	13	nw.	A. A. Quarnberg.
Vashon Island	King	40	24	58.4	+ 0.2	78	2	42	2†	36	1.68	+ 0.06	0.36	0	13	8[a]	8[a]	13[a]	s.	Miss Gertrude McClintock.
Wahluke	Grant	410	9	69.4		101	2	45	14†	45	0.34		0.22	0	3	13	11	6		F. C. Koppen.
Wallace	Okanogan	4,000	4								4.03		0.68	0	17	6	18	6	s.	G. A. Wallace.
Walla Walla	Walla Walla	1,000	29	66.8	− 1.4	94	2	50	15	33	2.11	+ 0.92	0.43	0	16	11	12	7	s.	U. S. Weather Bureau.
Washougal	Clarke	650	13	60.5	+ 0.9	81	1†	41	5	35	6.49	+ 4.11	1.90	0	17	10	6	14	w.	F. M. Grout.
Waterville	Douglas	2,624	23																	O. R. Hopewell.
Wenatchee	Chelan	639		68.0		97	1	45	15†	43	1.13		0.61	0	7	19	8	3	n.	A. A. Piper.
Wenatchee, near	do	1,169	14	61.8	− 0.3	88	2	41	14	31	1.77	+ 0.95	0.60	0	9	13	9	8	w.	G. A. Pitcher.
White Salmon	Klickitat	325	2	64.6		97	1	45	14†	43	1.05		0.34	0	11	12	8	10	w.	C. W. J. Reckers.
Wilbur	Lincoln	2,203	14	60.7	+ 1.8	92	1	32	13	51	2.08	+ 1.07	0.50	0	11	11	4	15	sw.	Rollin J. Reeves.
Wind River	Skamania	1,300	2	59.5		93	1	37	5	44	4.60		1.25	0	13	9	9	12	w.	U. S. Forest Service.
Winthrop	Okanogan	1,765	2	62.0[a]		92[a]	2†	35[a]	13	51[a]	1.87		0.51	0	15	18[a]	10[a]	1[a]		Methow Trading Co.
Yacolt	Clarke	800									5.95		1.26	0	12	11	7	12	sw.	C. R. Miller.
Yale	Cowlitz	375	6	60.9		93	1	40	5†	46	6.27		1.61	0	14	8	11	11	sw.	J. A. Williams.

TABLE 1.—*Climatological data for June, 1913. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oregon.																				
Agency Plains	Crook	2,363	....	54.0[a]	.....	85	1	35	6	40	0.93	.....	0.23	0	7	15	5	10	nw.	W. S. Williams.
Albany	Linn	212	31	61.4	− 0.1	93	1	40	16	40	3.37	+ 2.02	1.19	0	15	....	....	....	s.	F. M. French.
Alpine	Benton	350	16	60.8	+ 1.3	88	1†	37	10†	42	2.70	+ 1.58	0.80	0	7	7	19	4	e.	J. D. McPherson, jr.
Ashland	Jackson	1,903	29	60.4	− 2.0	92	1	43	20	36	3.17	+ 2.10	0.54	0	11	4	15	11	nw.	G. G. Eubanks.
Astoria	Clatsop	16	52	58.0	+ 0.2	79	1	43	6	26	5.33	+ 2.15	1.09	0	19	13	5	12	sw.	Irving Club.
Austin	Grant	4,250	2	52.0[e]	.....	77[e]	17	28[e]	20	43[e]	2.85[e]	.....	1.14[e]	0	11[e]	0[e]	4[e]	13[e]	w.	U. S. Forest Service.
Baker	Baker	3,466	23	58.2	− 0.4	84	1	38	20	39	2.76	+ 1.55	1.51	0	11	9	11	10	nw.	U. S. Weather Bureau.
Bend	Crook	3,629	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Bend Bulletin.
Black Butte	Lane	1,200	12	54.0	− 3.7	85	1	39	5†	40	4.95	+ 3.62	0.65	0	18	10	8	12	nw.	William Harris.
Blalock	Gilliam	237	15	69.8[b]	− 0.6	96[b]	18	49[b]	14	36[b]	0.62	+ 0.06	0.33	0	4	18[b]	7[b]	3[b]	w.	George W. Long.
Brogan	Malheur	2,600	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. M. Addington.
Burns	Harney	4,157	22	60.4	+ 2.9	90	1	31	19	48	2.93	+ 2.22	0.87	0	9	2	18	10	sw.	J. C. Welcome, jr.
Camp Creek	Crook	.....	....	57.9	.....	89	3	31	14	50	1.77	.....	0.59	0	10	3	14	12	nw.	E. W. Nelson.
Cascade Locks	Hood River	100	23	61.9	− 0.2	87	1	46	6	37	3.65	+ 1.08	1.28	0	12	10	6	14	w.	Val. W. Tomkins.
Cazadero	Clackamas	503	4	61.8	.....	90	2	39	5	42	4.90	.....	1.42	0	16	6	6	18	nw.	Alf Drill.
Centralpoint	Jackson	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. C. Fiero.
Clear Lake	Linn	3,030	....	53.6	.....	87	2	31	5	46	6.25	.....	1.56	0	16	8	3	19	sw.	E. O. Davolt.
Cliff	Lake	4,300	6	54.2	.....	84	1	23	20	50	3.61	.....	0.84	0	11	2	17	11	nw.	John C. Green.
Comb's Flat	Crook	4,027	....	54.4	.....	82	1	21	14	45	1.54	.....	0.55	0	6	7	0	23	nw.	J. R. Breese.
Condon	Gilliam	2,884	6	58.4	.....	87	2	36	5	38	2.80	.....	0.65	0	10	15	13	2	sw.	C. F. Kennedy.
Corvallis	Benton	266	25	60.0	+ 0.2	92	1	37	16	41	2.88	+ 1.69	0.80	0	12	10	6	14	sw.	Oreg. Agr. College.
Crescent	Klamath	4,400	1	51.5	.....	86	1	26	11	55	4.77	.....	1.31	0	12	18	3	9	sw.	C. W. Long.
Culver	Crook	.....	....	60.3	.....	93	1†	37	10†	48	1.24	.....	0.33	0	6	18	0	12	sw.	O. C. Young.
Dayville	Grant	2,200	19	61.8	− 0.2	90	1	38	6†	47	3.09	+ 2.46	0.85	0	12	8	17	5	nw.	J. Campbell-Martin.
Deadwood	Lane	350	3	59.4	.....	91	1	40	5†	47	3.93	.....	1.33	0	13	6	13	11	nw.	Joseph Slemmons.
Doraville	Columbia	600	11	57.8	+ 0.6	84	1	38	16	31	3.78	+ 1.72	1.25	0	17	9	8	13	nw.	Joseph Hackenberg.
Drain	Douglas	300	11	60.4	+ 0.1	91	1	37	16†	46	2.69	+ 1.09	0.66	0	15	6	7	17	sw.	Ira Wimberly.
Echo	Umatilla	625	9	68.0	.....	98	2	43	11†	52	1.44	.....	0.41	0	7	11	7	12	w.	R. B. Stanfield.
Ella	Morrow	830	9	69.6	.....	96	1	48	16	40	1.14	+ 0.54	0.69	0	4	18	7	5	sw.	Carl F. Troedson.
Eugene	Lane	449	23	59.8	+ 0.3	88	1	34	8	42	3.37	+ 1.89	0.83	0	18	7	7	16	w.	Paul G. Bond.
Fairview	Coos	142	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	William Bettys.
Forest Grove	Washington	220	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Pacific University.
Follyfarm	Malheur	.....	....	61.4	.....	89	16	32	14†	45	1.27	.....	0.34	0	6	11	14	5	w.	W. R. Gardner.
Gardiner	Douglas	72	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	William S. Angus.
Glassbuttes	Crook	4,200	....	.....	.....	82	1†	.....	.....	.....	3.35	.....	0.60	0	13	10	13	7	w.	C. J. Stauffer.
Glendale	Douglas	144	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Carl Olsen.
Glenora	Tillamook	575	22	56.8	− 0.1	94	1	33	5†	50	5.85	+ 2.20	1.07	0	14	9	5	16	sw.	Mrs. J. A. Reeher.
Gold Beach	Curry	40	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John W. Riley.
Grants Pass	Josephine	956	25	61.9	− 0.4	96	1	36	10	47	2.27	+ 0.79	1.09	0	10	8	6	16	sw.	John B. Paddock.
Grass Valley	Sherman	2,381	12	59.8	.....	94	1	33	16	49	1.75	.....	0.70	0	9	11	16	3	nw.	Agent O.-W. R. & N. Co.
Gurdane	Umatilla	3,500	4	56.0	.....	85	2	49	2†	41	0.30	.....	0.06	0	7	9	17	4	n.	Miss Belle Ely.
Headworks	Clackamas	719	11	60.6	+ 2.3	94	1	39	5	49	6.83	+ 3.23	1.72	0	17	10	11	9	sw.	Portland Water Works.
Heppner	Morrow	1,950	23	62.2	+ 1.6	89	1†	38	15	43	2.18	+ 1.14	0.63	0	11	7	23	0	w.	Frank Gilliam.
Hermiston	Umatilla	451	6	66.9	.....	98	2	41	16	48	0.94	.....	0.35	0	7	10	16	4	.....	C. W. Kellogg.
Hillcrest Orchard	Jackson	1,595	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. H. Parsons.
Hollywood Orchard	do	1,400	....	62.2[a]	.....	98[a]	1	40[a]	10	41	2.97	.....	1.11	0	12	10[a]	17[a]	2[a]	.....	A. C. Allen.
Hood River	Hood River	300	23	63.6	+ 2.8	97	1	43	6	45	0.96	− 0.02	0.35	0	5	15	9	6	w.	Edward W. Birge.
No. 2	do	485	1	65.2	.....	97	1	46	14	43	0.73	.....	0.30	0	6	8	18	4	w.	C. C. Starring.
No. 3	do	620	1	62.0	.....	96	1	38	6	51	0.97	.....	0.41	0	7	11	19	0	nw.	U. A. Newman.
No. 4	do	850	1	62.4	.....	93	1	40	4†	42	1.13	.....	0.98	0	2	24	5	1	w.	P. L. Smith.
No. 5	do	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. G. Jarvis.
Huntington	Baker	2,165	12	68.2	− 1.0	92	1†	40	14	43	0.21	− 0.18	0.06	0	6	7	21	2	w.	Agent O.-W. R. & N. Co.
Jacksonville	Jackson	1,640	25	61.4	− 1.1	94	1	40	14	41	3.19	+ 2.17	1.07	0	11	10	7	13	.....	E. Britt.
Joseph	Wallowa	4,400	24	55.2[e]	+ 0.9	83[e]	1	35[e]	22	41[e]	4.55	+ 2.76	1.17	0	14	9[e]	0[e]	16[e]	s.	F. F. McCully.
Klamath Falls	Klamath	4,100	24	57.2	− 1.9	82	1	36	20	36	2.54	+ 1.76	0.57	0	9	7	15	8	nw.	Augusta J. Hayden.
La Grande	Union	2,784	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. A. Worstell.
Laidlaw	Crook	3,171	....	57.7	.....	88	1†	33	4	45	2.44	.....	0.80	0	10	10	9	11	nw.	J. W. Brown.
Lakeview	Lake	4,825	30	54.3	− 4.4	79	2	30	20	39	3.22	+ 2.12	0.96	T.	11	9	9	12	s.	C. C. Gott.
La Pine	Crook	4,230	....	54.0[f]	.....	88[f]	3	27[f]	11	53[f]	3.36	.....	1.55	0	12	16	9	5	s.	Albert Larson.
McKenzie Bridge	Lane	1,400	12	59.2	+ 0.5	97	1	32	5	56	6.53	+ 3.99	1.52	0	21	8	0	22	sw.	George Frissell.
McMinnville	Yamhill	182	26	60.4	+ 0.7	93	1	37	5	44	3.76	+ 2.22	1.36	0	11	12	6	12	sw.	M. E. Pettit.
Marshfield	Coos	34	12	57.2	.....	72	1†	38	16	32	2.57	.....	0.90	0	15	7	4	19	nw.	U. S. Weather Bureau.
Meadowbrook Ranch	Hood River	850	1	62.8	.....	93	1	42	15	42	1.36	.....	0.45	0	10	15	11	4	sw.	John W. Palmer.
Medford	Jackson	1,425	3	62.6	.....	96	1	40	10	45	3.09	.....	1.12	0	14	8	14	8	nw.	U. S. Weather Bureau.
Merrill	Klamath	4,070	8	.....	.....	.....	.....	31	24	....	1.39	.....	0.45	0	5	19	4	7	.....	U. S. Reclamation Service.
Metolius	Crook	2,525	3	59.8	.....	92	1	35	10	46	1.27	.....	0.32	0	7	21	7	2	sw.	John A. Hoffman.
Miramonte Farm	Clackamas	195	25	60.2	− 0.2	87	2	35	1	38	4.40	+ 2.95	1.11	0	17	8	5	17	w.	G. Muecke.
Mount Angel	Marion	485	27	62.0	+ 0.4	87	1	44	17	34	4.07	+ 2.01	1.02	0	11	7	7	16	s.	Dr. Urban Fisher.
Mount Hood	Hood River	1,450	2	57.8	.....	90	1	34	4†	47	1.26	.....	0.46	0	8	8	20	2	w.	Isaac Beal.
Musick	Douglas	5,000	4	50.2	.....	84	1	34	14	42	6.33	.....	1.62	0	18	9	2	19	sw.	Alex. Lundberg.
Newport	Lincoln	69	26	55.9	+ 0.1	68	20	40	6	19	6.62	+ 3.77	1.33	0	18	6	10	14	nw.	William Mathews.
Odell	Hood River	1,000	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. Chipping.
Ortley	Wasco	1,600	2	59.8	.....	91	1	42	14	33	1.58	.....	0.57	0	7	12	15	3	w.	L. D. Firebaugh.
Paisley	Lake	4,209	10	57.3	− 1.4	84	6	35	20	39	1.95	.....	0.50	0	9	6	17	7	n.	C. M. Sain.
Parkdale	Hood River	1,650	3	60.0	.....	92	1	37	5	40	1.13	.....	0.48	0	10	17	12	1	nw.	S. G. Babson.
Pendleton	Umatilla	1,070	24	66.6	+ 2.4	97	3	40	6	49	2.26	+ 1.34	0.77	0	13	11	15	4	w.	E. F. Averill.
Peninsula	Crook	2,640	....	62.0	.....	92	2	40	5	40	1.11	.....	0.32	0	9	12	14	4	w.	M. M. Davenport.
Pilot Rock	Umatilla	1,817	5	64.8	.....	95	2†	41	5†	44	2.45	.....	0.66	0	12	10	17	3	nw.	John P. McManus.
Portland	Multnomah	57	43	62.9	+ 1.6	87	2	47	5	31	4.24	+ 2.46	1.09	0	16	8	8	14	nw.	U. S. Weather Bureau.
Port Orford	Curry	80	8	55.6	.....	67	28	40	9	21	3.90	.....	0.78	0	13	9	14	7	s.	John D. Loucks.
Powell Butte	Crook	3,240	....	57.4	.....	89	1	32	5†	49	2.93	.....	0.70	1.5	10	5	12	13	w.	Earl Saunders.
Prairie City	Grant	3,425	2	59.4	.....	89	6	33	20	50	3.09	.....	0.71	0	13	10	14	6	w.	A. M. F. Kirchheiner.
Prineville	Crook	2,864	17	.....	.....	.....	.....	.....	.....	.....	1.29	+ 0.49	0.65	0	4	.....	.....	.....	.....	Mrs. T. M. Baldwin.
Prospect	Jackson	2,800	7	57.4	.....	91	1	34	10	44	3.22	.....	0.81	0	14	7	16	7	sw.	Charles A. Lower.
Ramsey	Wasco	1,350	12	59.2	.....	87	1†	36	15	40	1.63	.....	0.67	0	8	22	5	3	w.	Mrs. Iva B. Collins.
Range	Grant	3,500	5	55.3	.....	86	1	30	5	44	3.90	.....	0.60	0	11	8	9	13	s.	Mrs. Emma Arbuckle.
Redmond	Crook	2,990	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. G. Stevens.
Richland	Baker	2,350	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	L. G. Morgan.
Riddle	Douglas	715	....	61.3[b]	.....	91[b]	1	40[b]	6	42[b]	2.02	.....	0.42	0	10	8[b]	7[b]	15[b]	n.	P. A. Wilson.
Rio Hermoso	Crook	2,110	2	51.3	.....	73	12†	27	14	43	1.70	.....	0.47	0	9	14	10	4	nw.	C. T. Hubbard.
Riverside	Malheur	3,200	14	65.2	+ 2.8	100	4	30	19	56	3.17	+ 2.34	0.85	0	12	13	13	4	w.	Mrs. Leah Fairman.
Robbville	Crook	4,000	....	53.6	.....	85	1	25	5†	50	3.02	.....	2.00	0	4	23	5	2	n.	Loren B. Robb.
Roseburg	Douglas	510	35	61.7	+ 0.8	93	1	42	16	39	3.27	+ 2.20	0.98	0	16	7	13	10	n.	U. S. Weather Bureau.
Salem	Marion	120	23	61.8	+ 0.6	89	1	45	15†	33	3.48	+ 2.20	0.80	0	13	10	....	20	nw.	M. P. Baldwin.
Seneca	Grant	4,800	2	51.2	.....	78	1†	24	20	47	3.68	.....	1.02	0	10	6	10	14	s.	E. J. Southworth.

TABLE 1.—*Climatological data for June, 1913. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oregon—Continued.																				
Silver Lake	Lake	4,700	16	55.8	+ 0.2	87	1	27	20	48	1.69	+ 0.70	0.62	0	9	8	20	2	sw.	G. W. Marvin.
Siskiyou	Jackson	4,115	5	53.4	.....	74	2	32	14	32	2.97	.....	0.93	0	10	3	10	17	ne.	U. S. Weather Bureau.
Sparta	Baker	4,150	22	60.0	+ 2.8	86	2	39	25	40	3.30	+ 2.14	1.20	0	8	17	7	6	w.	J. A. Wright.
Stafford	Clackamas	400	17	60.2	+ 0.3	90	1	40	3	41	5.25	+ 3.46	1.20	0	.....	.....	.....	.....	sw.	John P. Gage.
Tablerock	Jackson	1,215	.....	62.2	.....	98	1	37	5†	51	3.27	.....	0.88	0	13	10	11	9	nw.	Mrs. J. C. Pendleton.
Talent	....do.	1,800	.....	62.0	.....	95	1	42	5†	44	3.06	.....	0.79	0	9	8	7	15	nw.	T. F. Smith.
The Dalles	Wasco	112	39	68.8	+ 3.0	98	2	46	14	40	1.55	+ 0.97	0.70	0	7	10	7	13	w.	Judd S. Fish.
Tillamook	Tillamook	.....	.....	57.2[b]	.....	83[b]	22	33[b]	12	42[b]	6.60	.....	1.10	0	16	12	0	18	nw.	Will Spalding.
Toledo	Lincoln	75	23	55.4	− 1.0	80	1	40	7†	38	5.50	+ 2.34	1.20	0	13	11	17	2	.....	C. B. Crosno.
Umatilla	Umatilla	340	25	67.6	− 1.1	102	1†	48	15	47	1.64	+ 1.32	0.50	0	8	11	4	15	sw.	Mrs. H. T. Duncan.
Union	Union	2,787	2	59.0	.....	84	1†	37	6†	42	3.68	.....	0.87	0	15	12	8	10	nw.	Robert Withycombe.
Vale	Malheur	2,242	21	67.1	+ 3.7	94	2†	40	20†	45	3.38	+ 2.67	0.79	0	10	15	12	3	ne.	H. P. Osborne.
Van	Harney	3,506	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	George Howe.
Vida	Lane	1,100	2	58.6	.....	88	1	39	16	35	8.04	.....	2.01	0	18	7	7	16	w.	W. H. Pendell.
Waldo	Josephine	1,900	1	58.5[f]	.....	88[f]	2	38[f]	14	40	2.18	.....	0.84	0	7	5[d]	13[d]	8[d]	s.	J. H. Wittrock.
Wallace Orchard	Polk	170	4	60.0	.....	90	1	40	5†	39	3.73	.....	0.96	0	15	6	11	13	.....	Charles A. Park.
Wallowa	Wallowa	2,935	10	56.4	− 1.7	77	2†	36	5†	38	3.89	+ 2.36	1.07	0	15	1	10	19	nw.	L. J. Coverstone.
Wamic	Wasco	1,500	12	62.0	+ 2.2	89	1	37	10	46	1.54	+ 0.70	0.50	0	8	7	12	11	w.	A. J. Swift.
Warmsprings	Crook	1,500	11	62.9	.....	94	1	38	7†	52	1.25	.....	0.23	0	11	14	15	1	nw.	George W. Robbins.
Wasco	Sherman	1,263	.....	63.4	.....	92	2	42	14	41	1.22	.....	0.42	0	6	19	6	5	w.	J. R. Howell.
Weston	Umatilla	1,800	21	61.4	+ 0.6	89	1†	39	14	37	3.36	+ 2.11	0.65	0	15	7	2	21	sw.	M. A. Baker.
Whitaker	Crook	4,250	.....	51.8	.....	85	1	18	14	54	3.21	.....	1.99	0	11	6	17	7	nw.	Frank Percivall.
Williams	Josephine	1,368	21	60.0	− 0.9	94	1	36	11	46	2.77	+ 1.94	1.25	0	9	10	5	15	n.	Francis J. Le Roy.
Yonna	Klamath	4,146	6	54.3	.....	81	6	26	20	53	1.72	.....	0.47	0	8	3	13	14	w.	Ward Rueck.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for June, 1913. District No. 12, Columbia Valley.*

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Montana.																																
Anaconda	Missoula				T.		T.	.11	.02	.10	T.	*	1.86	.02	T.	.01	*	.22	T.	.08			T.	.07	*	.39	*	.77	.05	T.	.08	3.78
Butte	do	T.		T.	T.		T.	.08	3.00	3.00	T.	1.40	T.	T.	T.	T.	T.	.20	.20	.50	.06	.03	.10	.08	.10		.10	.45	T.	.15	8.86
Columbia Falls	Flathead							T.		.13	.25		.10	.09						.20	T.			.12	.23	.10	.02	.06	.71	.85	.03	4.38
Como	Bitter Root							.02	.09	.26	.06	.55	.04	.45	.02			.13	.05	.29			.07	.03	.24	.07	.70	.08				3.15
Dayton	Flathead									.20				.30						.20	T.			.50		.30	.50		.35		.10	2.45
Deer Lodge	Missoula								.10	.16		.06	1.14	.10	.17		.09	.24	.12	.23				.34	.04	.44		.18				3.41
East Anaconda	do				T.		.03	.12	.02	.18		1.51	.08	.02	T.	T.	.04	.04	.06	T.			*	.12	*	.42	.57	.16	T.	T.	.23	3.60
Fortine	Kootenai								.02	1.05			.04	T.					.23	.24	.07		.18	.06	.02	.01	.30	.20	1.01	.23	.58	4.24
Hamilton	Bitter Root								.09	.06	.10	T.	.84	.02	.68			.12	T.	.16	.16		.04	.05	.01	.05	.15	.17	T.		.03	2.73
Hat Creek	Missoula						T.	.10	.33	.01	.09	.10	.91	.16	.09	.02	.16	.39	.31	.04	T.	T.	T.	.45	.03	.45	.20	.03	T.	.03	.10	4.00
Haugan	do								.02	.71	.11			.10	.05					T.	T.		.04	.06	.05	.47	T.	.26	.09	T.	.30	2.26
Heron	Columbia								.57	.11				.20						1.25			.20	.42	.23	.07	.03	.15	.11	.01	.13	3.48
Kalispell	Flathead							.06		.12			.10	.08	.02				T.	.20		.02	.02	.18	.04	.07	.14	1.05	.73	.37	.01	3.21
Libby	Kootenai								.01	.10				T.	.05	T.			.40	.47			.05	.12	.07	.13	.16	.47	.25		.05	2.33
Missoula	Missoula							.19		.10	.02		.20	.07	.23			T.		.08	.04		.01	.43	.05	.38	.02	.20	.33	.03	.01	2.39
Ovando	do				T.		.05	.04	.06	.10	.20	.02	.33	.38	.25	T.	T.	.51	.08	.10		T.	.48	.06	.31	.09	.55	.28	.06	.10		4.05
Philipsburg	do							T.	T.	.28		.20	1.15	.10	.68	T.	T.	.54	.04	T.	.04		T.	.38	.02	.55	.15	.23	.44	.09	.06	4.95
Plains	Sanders							.10	.06	.51			.10	.10	.07			T.		.20			.13	.04		.48	.02	.15	.18	.05	.17	2.36
Pleasant Valley	Kootenai								.05	.50	T.		T.	.05	.01			T.		.05		.12	.10	.03	.06	.06	.18	.38	.21		.08	1.88
Polson	Flathead									.25					.30					.70			.12			.58	.30		.16			2.41
St. Ignatius	do							.01	.15	.25			.17	.22	.04				.02	.10				.58	.03	.25	.10	.65	.57	.13	.15	3.42
Saltese	Missoula									.36	.19			.12	.09						.12		.15	.36	.11	.35		.52	.46	.06	.46	3.35
Stevensville	Bitter Root							.03	.02	.49	.03	.77		.40	.09	T.		.06	.01	.22		.06	.26	.03	.02	.59	.03	.21	.06	.03	.02	3.43
Thompson Falls	Columbia								.03	.16	.03			.04	.09							.06	.11	.17	.06	.33	.17	.16	.35	.19	.23	2.18
Trout Creek	do								.22	.12				.20					.26					.15	.30	.30		.35	.20			2.10
Victor	Bitter Root							T.	.05	.03	.06		.93	.02	.30			T.	T.	.30	.04		T.		T.	.40	.28	.74			.05	3.20
Willow Glen Stock Farm.	Missoula																														
Wyoming.																															
Afton	Snake						.20					.17	.18					.38						.20	.10	.26	.21	.40	.50	.45	.10	3.15
Alta	do					.45	.25	.03	.05	.02	.04	.23	.07	.02				.01	.15	.01				.46	.22	.08	.01	.35	.22	.35	.32	3.34
Bechler River	do																															
Bedford	do									.16		.16	.11					.20	.23					.25	.11	.15	.38	.70	.34	.41	T.	3.20
Moran	do				.15	.23				.20	.02	.60		.05		.05		.04	.18					.15	.27	.02	.21	.22	.48	.11	.21	3.19
Snake River	do	.30		.01	T.	.09	.18	T.		.05	.05	.57	T.	.06	.09			.02	.34					.13	.26	.26	.12	.29	.28	.25	.38	3.73
Nevada.																																
San Jacinto	Snake			.11			.05	.01	.09	.08	.38	1.12	.07											.08	.16	.16	.38	.15	.01			2.85
Idaho.																																
Albion	Snake						.16	T.	.05		.52	.84	.03					T.						T.	.10	.26	.50	.40	.10		T.	2.96
Almo	do										.60	1.40														.45	1.40	.25	.80	.20	.40	5.50
American Falls	do				.19					.10		.24		.11											.14	.14	.08	.16	.04			1.20
Arrowrock	Boise				.04			T.		.91	.18	.04								.02			.20	.27	.04		.07	.40		.05	2.22
Blackfoot ‖	Blackfoot			T.	T.	.05	T.	T.	T.		.32	.01		.02				T.					T.	T.	.04	.01	.17	.10	.16	.02	.27	1.17
Blackfoot Dam	do				.10	.15	.26		.05	.15	.17	.15	.05					.20						.17	.20	.12	.35	.40	.75	.35	.12	3.74
Bogus Creek	Payette				.18		.02	.04	.10	.73	.82	.05											.62	.11	.36	.14	.32	.45	.17			
Boise	Boise			T.	T.		.07	T.	.03	.44	.18			T.				.05	.02	T.			.31	.11	.06		.03	.13	.04		.17	1.64
Boise King	do																							.67	.19	.07	.01	.17	.55	.03	.34	
Bonners Ferry	Kootenai								.26	.05				.20	.10					.72			.19	.65		.08	.25	.11				2.61
Boulder Mine	Boise				.11				.10	.21	.17	.11											.30	.42	.18	.14	.02	.60	.02		.41	2.79
Buhl	Snake				.37			T.	.36	.02	.95	.40	.02	.12									T.		.06		.04	.07			.08	2.49
Caldwell	Boise							.10		.26										T.			.26	.07	.07			.47	.32		.40	1.95
Caldwell Experiment Station.	do							.14		.25													.27		.16			.48			.38	1.68
Cambridge	Weiser							.10		.72													.80	.26	.16	.35	T.	.30	.42	.02		3.13
Cedar Creek Dam	Snake	.09	.10		T.	.17	.26			.03	1.18	.88	.34			.13		T.	.04					.02	.27	.18	.24	.01	.02		.02	3.98
Chesterfield	Port Neuf			.02	T.	.06	.76		.06		.11	.14	.02					.25	T.	.02				.17	.26	.79	.31	.47	.67	.28	.15	4.54
Clarks Fork	Pend Oreille								.30	.09	T.			.41	.03				.17	.30			.39	.36		.01	.25	.03	.06	.09	.15	2.64
Clyde	Lost River Region.																															
Coeur d'Alene	Spokane							.55	.15	.20	.10	.30					.20		.15	.15	.15		.73		.02	.19	.18	.14	.42		.82	4.45
Council	Weiser							.15	.07	.72					T.				.03	T.			.54	1.85	.10	.53	.04	.50	.33	.05	.11	5.02
Culdesac	Clearwater							.15	.09	.10	.05			.25	.10					.37	.22		.40	.15	.13	.15	.05			.08		2.29
Deary	do																					1.03	.73	1.00	.13	.41	.11	.60	.24		.29	4.54
Dent	do																															
Driggs	Snake		T.		.33	.24	.10	.20		T.	T.	T.	.12	.10				.15	T.					.20	.10	T.	T.	.10	.43	.26	.30	2.63
Emmett	Payette							.05		.25	T.	T.							T.	T.			.20	.15	.05			.50	.25		.22	1.67
Forney	Salmon																															
Garnet	Snake																															
Geneva	Bear																															
Glenns Ferry	Snake			.15					.11			.05	.37	.36													.62	.45	.10		.06	1.23
Gooding	Big Wood		T.	T.	.04	T.	T.	T.	.03	.09	.07	.34								.03			.18	.08				.05				1.38
Grace	Bear					T.	.20			.01	.20	.40	.20	.05				.05						.07	.03	T.	.07	.16	.01		T.	0.91
Grand Forks	St. Joe																							.05	.25	.05		.30	.25	.25		
Grandview	Snake								.05	.19																						
Grimes Pass ‖	Boise			.20	.01			.05	.20	.08	.31	.07		T.				.01	T.				.42	.02	.02	.21	.19	.29				0.97
Guffey	Snake				.11	T.		.20	T.	.26	.01	T.						T.	T.	T.	T.		.22	.18	.23	.24	.01	.49	.06	.17	.26	2.99
Hailey	Big Wood					.35	.02		.23	.32	.47	.47	.02	.01					T.					.06	.14	.05	T.	.21	.01		T.	1.27
Hollister	Snake	T.	T.	T.	.12	T.			.02	.61	.90	.02	T.	T.	T.	T.	.01	.02					T.	T.	T.	.07	.26	.30		.52	.11	3.15
Hotspring	Bruneau	T.						T.	T.	.40	.08	T.	T.					T.	T.				.02	.10	.03	.11	.31	.15				2.40
Idaho Falls	Snake						.74	.06	.07		.08	.15		.05									.02	.12	.06	.06	T.	.36			T.	1.10
Indian Cove	do			.04			.03	.76	.03	.06	.05	.09	.25	.24											.31	.06	.25	.30	.35	.20	.37	2.99
Indian Valley ‖	Weiser								.07	.26	.22												.16	.02	.06	.05	.32					2.16
Irwin	Snake																						.03	1.00	.15	.55	.05	.15	.40	T.	T.	2.88
Kellogg ‖	Coeur d'Alene																															
Kilgore	Lost River Region.			.40	.75	.25	.50	.30	.25	.10	.05	.90	.04	.08			.75						.10			.10	.75	.50	.10	.10		6.02
Kirkham	Payette							.15	.11	.50	T.	.10												.76	.30		.15	.19			.58	2.84
Kooskia	Clearwater									.25				.03	.04				.02	T.			.60	.80	.70	.40			.30	.20	.23	3.57
Lakeview	Pend Oreille								.20	.15			.14	.20	.15					.56			.30	.10	.45		.25			.25	.35	3.10
Landore	Snake				.07	T.			.47	1.54	.10		.19	.13	.08				.16	.02			1.50	.21	.27	.56	.15	1.05	.40	.01	.20	7.11
Leadore	Salmon																															
Lewiston	Clearwater							.50	T.	.12	T.		T.	.58	.17				.35	.36		.03	.31	.11	.83	.21		.15		T.	.06	3.78
Little Camas	Boise						.03	.05	.12	.03	.23	.27	.27	.02					.34				.30	.32	.12			.27				2.37
Loon Creek	Salmon		.10		T.	.10		.02	.18	.13	.62	.02	.73	.15	.07			T.		.01			.02	.13	.01	.06	.02	.08	.15		.18	2.78
Mackay	Lost River Region.							T.	.20	.10		.80	.10	.10					.10					.15		.35		.20	.10		.10	2.30

TABLE 2.—*Daily precipitation for June, 1913. District No. 12*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Idaho—Continued.																																
Meridian	Boise				.54			.15	T.	.35	.01	.12							.01	T.			.30	.14	.14	.01	T.	.24	.03		.24	2.28
Mesa ||	Weiser					T.		T.	T.	.55	T.									T.			T.			.62	T.	.20	.40	T.		
Middle Fork	Clearwater																															
Milner	Snake	.01								.25	.59	.07	T.						.07						.30	.08	.58	T.	.11			2.06
Moore	Lost River Region.				.02		.01		.15			.82	.04	.03	.04				.01					.11			.60	.20	.01	.05	.06	2.15
Moscow	Palouse							.45	.01	.20		.46			.12				T.	.42	.20		.15	.46	.28	.30			.15			3.20
Mountainhome	Snake			T.	.06		T.	.23	.05		.55	.02	.09					T.	T.				.23	.09	.03	.17	.02	.12				1.66
Murtaugh ||	do						T.					.75	.04		T.									T.		.23		.70			1.72
New Meadows	Salmon								.06	.09	.10				.03				.02	.09			.39	.57	.31	.61	.09	.50	.48		.04	3.38
Nezperce	Clearwater							.04	.03	.22			.02	.14	.22				.02	.38			.82	.37	.45	.03	.10	.41	.10	.15	.18	3.68
Oakley	Snake										.35	.90	.04											T.	.25	.35	.57	.45	.10			3.01
O'Hara Bar	Clearwater																															
Orofino	do							.01	.67	.10				.43	.10					.37			.80	.52	.12	.34	.04	.34	.40		.07	4.31
Paris	Bear									.10	.80	.15						.50								.20	.35	.45	.87			3.42
Payette	Payette							.12		.60	.02			.02					T	T.			.50	.10	.60	.26	T.	.50	.05		.23	3.00
Pierson	Salmon					.13			.36		.39	.36	.35									.16	.35	.16	.09	.19	.12		.13		.14	2.93
Pleasant Valley	Boise				.01				.03	.37	.18								T.	.16			.32	.25	.07	.01		.12	.08		T.	1.60
Pocatello	Port Neuf					.06	T.	.03	T.		.23	.15		T.					T.					.04	.29	T.	.37	.06	.65	.01	.07	1.96
Pocatello Nursery	do				.18			.12	.03		.36		.03	.05	T.				T.					.40		.10	.28	.12		.78	.24	2.69
Poplar	Snake							.09	.04	.21	.18	.15		.04											.52	.05	.23	.51	.63		.20	2.85
Porthill	Kootenai								.20	.10	.07			.10	.10		.20		T.	.13		.07	.20	.05		.11	.22	.08			.01	1.64
Priest River Experiment Station:																																
No. 1	Pend d'Oreille								.34	.13				.30	.04	.04	.17			.30	.03		.36	.87	.06	.01	.27	.13	.54	.02	.22	3.83
No. 2	do								.31	.11				.30	.04	.02	.21			.28	.01		.30	.72	.04		.20	.11	.53	T.	.20	3.38
No. 3	do								.37	.08				.29	.04	.01	.20			.30			.29	.73	.03		.22	.09	.50	T.	.20	3.31
Pyle Creek	Payette				.07			.02	.03	.96	.08	.02						T.		.05			.28	.14	.13	.26		.64	.03	.03	.26	3.03
Richfield	Big Wood		.06	T.		.37	.02	.01	.14	T.	.14	.43	T.	T.					.02						T.	T.	.36	.23	.15		.03	1.94
Rogerson	Snake				.04			.02	.02		1.00	1.98	.02											.04	.10	.30	.55	.20	.05			4.32
Roseberry	Payette																															
Roseworth	Snake	.24					1.06	T.	.05	.02	.27	.54	.25						.02					.03	.17	.07	.08	.03			.03	2.87
Rupert	do					T.		T.	T.	T.	.53	.43		.07				T.						.08	.19	.50	.36	.01	.01	T.	2.18
St. Anthony	do																															
St. Maries	St. Joe																															
St. Michaels Priory	Clearwater								.28	.16	.11			.09	.26				T.	.06	.36		.48	.27	.77	.63	.03	.47	.18	.11	.28	4.54
Salmon	Salmon	.05			.19	.02		.01	.12	.30	.31	.11	.89	.06	T.	T.	T.	.07	.05	.09			T.	.14	.09	.24	.32	.21	T.	.05	.06	3.38
Sandpoint	Pend d'Oreille								.40	.15				.19	.05					1.10			.27	.60			.45	.15	.30		.10	3.76
Sheep Hill	Boise				T.	.05		.02	.74	.55	.48	T.							T.				.31	.03	.17	.08	.10	.16	.03		.40	3.12
Shoshone	Big Wood																															
Silver City	Owyhee			.04	.03	.03		.31		.76		.15							.02				.43	.30	.55	.07	.06	.56	.11			3.42
Soldier Creek	Big Wood		T.	.05		.42	T.	.01	.09	.16	.88	.65		T.									.17	.03	.04		.11	.43	T.		.05	3.09
Spirit Lake	Pend d'Oreille																															
Springfield	Snake					.20			.23		.18	.30		.13										.10	.02	.13	.23	.30		.14	1.96
Spring Hill	Boise							T.	T.	.41	.16		T.	T.					.16				.45	.07	.09	.02	T.	.37	.07		.49	2.29
Sugar ||	Snake				.04	.33		.37	.09	.08	.66				.05											.22	.03	.55	.17	.50	.16	3.25
Sunnyside	do							.05	.08																	.04	.03	.03				
Tripod Mountain	Payette					T.				1.07				.09												.02	.21	.52	.29	.31		.59	3.80
Twin Falls	Snake	.16					T.	T.	.12	.43	.75	T.	T.	.29			.02							.72	.21	.52	.29	.31				2.54
Vernon	do					.05	T.		.25	.09	.07	.04		.08						T.				.02	.20	T.	.32	.23			T.	2.62
Wallace	Coeur d'Alene								.10	.06	.50			.31	T.				T.	.75	.01		.20	.40	.14	.36	T.	.33	.69	.15	.17	4.17
Weiser	Weiser							.30		.68	.07			T.					T.	.04			.19	.09	.14	.22		1.01	.17		.57	3.48
Wendell	Big Wood	T.		T.	.65	.16		.20	.13	.03	.22	.50	.03											.05	.02	T.	T.	.05				2.04
Weston	Bear					.10					.20	.45	.63											.05	.08	.25	.22	.28	.40	.27	.02	2.95
Washington.																																
Aberdeen	Coast								.06				.31	.20	.30	.33	.20			.79	.07	.70	.36	.06	.73	.49		T.	.03	.32	1.45	6.40
Anacortes	Puget Sound							.03	.23					.17	.19	.05				31	.32	.42		.01	.01		.16		.06	.01	.31	2.28
Anatone	Snake							.45	T.	.90	.20			.30	T.				T.	.40		T.	.22	.40	.31	.45		.35	.05	.10	.21	4.34
Baker	Puget Sound				T.			.40	.10	.20			T.	.60	.30	.60				.60		.10	.10	.10	.10	.10			.10		.40	3.80
Bellingham	do				T.			.02	.43			T.	.04	.16	.09	.41			T.	.84		.51			.01	T.	T.		.15		.47	3.13
Bellingham, near	do																															
Blaine	do							.04	.30	.02			T.	.10	.07	.06	.16			.30	.12	.90			.05		.08		.14		.43	2.77
Blewett	Wenatchee																															
Bremerton	Puget Sound									.04				.12			.10			.14		.58		.58	.10		.18			.20	2.04
Brewster	Columbia							T.	.41	.21				.10	T.	T.	T.		.40	.28	.01	.05	.10			.18	.12	.03	.13		T.	2.02
Buckley	Puget Sound							.03	.54	.02			.15	.48	.10	.28	.04		.03	.72	.09	.22	.08	.26	.19	.19	.13	.02	.09	.02	.67	4.35
Bumping Lake	Yakima						.28	.25	.18				.08	.02	T.		T.			.18	.30	.01	.20	T.	T.	.20	T.			T.	T.	1.70
Cedar River	Puget Sound																															
Centralia	Coast					T.			T.	T.			.30	.17	.06	.36	.03			.70		.34	.94		.10	.17			T.	.06	.19	3.42
Clearbrook	Puget Sound							.23	.26	.11			.15	T.	.23	.24				.41		.90		.02			.08		.08		.87	3.58
Cle Elum	Yakima							.37	.03	.07				.09	.08	.01				.19		.08	.06									0.98
Colfax	Palouse								.55	.37	.02			.52						.60			.10	.64	.04	.16		.11	.04		.13	3.28
Colville	Columbia								.63	T.	.18			.26	.04		.15		T.	.66			1.8	1.28	.02	.06	.05	.16	.14	.32	.22	4.35
Conconully	Okanogan							T.	.82	.49				.27	.08	T.			T.	.39	.09	.15	.13	.04	.07	.04	.09	.04	.15		.22	3.07
Coulee City	Columbia																															
Cowiche	Yakima							.21		.04				.02	.03							.10	.28			.03					.15	0.86
Darrington	Puget Sound																															
Davenport	Columbia							.40		.93				.85						.49			.37	.07	.09	.09		.25			.37	3.91
Dayton	do							.23	.18	.51	.03			.49			.01	T.	.70	.05			18	1.00	.03			.49			.09	3.99
Deer Park	Spokane								.08	.06	.01			.40						.55			.15	.26		.07		.08	.06	.01	.58	2.31
Detroit	Puget Sound								.03				.29	.10	.01	.13	.01		.02	.16		.43	.32		.11						.36	1.97
Dixie, near	Columbia							.35	.25	.40	.30			.75	.02			T.	.38	.20			.80	1.89	.17	.13	.03	.10	.08		.03	5.88
Douglas Lake	Puget Sound																															
Dryden	Wenatchee							.13	.29	.12				.09	T.					.43		.18	.10			.05					.02	1.41
Duckabush	Puget Sound																															
Ellensburg	Yakima							.10	.05					.08							.06	.30	.25				.21			.02		1.07
Eltopia	Columbia																															
Forks	Coast																															
Fort Simcoe	Yakima																															
Gerome	Columbia								.18	.14	.03			.46	.09				.03	.41		.25	.21	.31		T.		.35	.26		.15	2.87
Goat Lake	Puget Sound								.46	.32	.02				.32	.58	.23				.64		.36	.26	.03		.20				.19	3.61
Gold Basin	do							.60	.07	.16			.13	.43	.43	.57	.13			.54		.44	.18	.40	.12	.35			.48		1.19	6.22
Gold Creek	Yakima							.40	.50										.30					.60								1.80
Goldendale	Columbia							.35	.03										.06	.10		.05	.30	.15		.14				.02		1.20
Granite Falls	Puget Sound							.33	.32	.07			.20	.54	.20	.22	.01			.73	.15	.41	.07	.21	.27	.12	.01		.30	.01	.37	4.54
Grays River	Coast																															
Hanford	Columbia							T.		.16				.28			T.	T.		T.		T.	.65		T.					.02	1.11
Hatton	do							T.	.33	T.				.71						T.		T.	.70				T.	.27		.03	2.04
Huntsville	do								.45	.35				.46					.18					.65				.82		.11	3.02

TABLE 2.—*Daily precipitation for June, 1913. District No. 12*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Washington—Contd.																																
Irene Mountain	Columbia								T.	.40		T.	T.	.26	.28	.01	T.		T.	.40	T.	.05	.42	.07	.22	.28	.10	.37	.03		.10	2.99
Kennewick	do							.04	.19				T.	.09							T.	.73		.04							.13	1.22
Kent	Puget Sound								.21				.10	.20	.29	.13	.05		.47		.41		.04	.31	T.				.10		.68	2.99
Kettle Falls	Columbia								.12	.13	.03			.41	.04		.14		.03	.80		.01	.15	.54		.05	.03	.33	.03	.06	.16	3.06
Kiona	Yakima													.16									.54									0.70
Kosmos	Columbia									.14	.01		.12	.34	.12	.18	.14	.36	.57	.18	.13	.39	.95	.12	.21	.06						4.02
La Center	do				T.				T.				.27	.65	.08	.01	.10	.04	.57	1.12	.47	.70	.45	.02	.14	.16		.05	T.	.31	T.	5.14
La Crosse	Palouse							.16	T.	.27	T.		T.	.36	T.		T.		.03	.24			.65	T.	T.	T.		.06	.02		.10	1.89
Lake Cleallum	Yakima							.34	.07	.06	T.		T.		T.	T.	T.			.31	T.	.04	.03	T.	T.	T.		T.	T.		.02	0.87
Lake Kachess	do							.46	.02	T.				.05	.10	.04			T.	.27		T.	.10	T.	T.						.10	1.14
Lake Keechelus	do						.35	.02	.05	T.	.15		T.	T.	.15	.18				.40	.10	.25	.25	.05	.06	T.			T.	T.	.38	2.39
Lakeside	Columbia								.17	.20				.05				T.	.01	.20		.06	.12	T.		.03					.02	0.86
Laurel	do							.24	.04					.04						.06		.28	.48	.26							.04	1.44
Laurier	Kettle								.34	.30				.15	.10	.01	.08			.81			.14	.22	.33	.09	.16	.16	.03	.11	.20	3.23
Lone Tree	Coast								.10				.18	.47	.08	.44	.17		.02	.59	.08	.73	.41	.03	.17	.05	.02	.01	.02	.22	.95	4.74
Longmire Springs	Puget Sound																															
Lost Creek	Columbia									.25				.20					.15	.25		.20	.35	.15	.13	.20		.10	.90	T.		2.88
McConihe	do							T.	T.	.24				.08	.13		T.	T.	T.	.01		.09	.70	.05		.01	T.	T.			.07	1.38
McCumbers Ranch	do							.30											.20			.25	.50									1.25
Moses Lake	do							.25					.13		T.				T.	.06	T.	.40	.04			T.	.25			.02	1.15
Mottinger	do							.15					.14										.21	.01			.05			.17	0.73
Mount Pleasant	Coast				T.			T.	.15				T.	.07	.02	.03		T.	T.	.93	.12	.16	.04	T.	.15	.04				T.	.20	1.91
Moxee	Yakima							.14	.13	.02				.05			T.			.10		.07	.42	.04	.02						T.	0.99
Newport	Pend Oreille								.43	.10	.01			.32	.01		.30			1.10		.16	.30	.32		.11	.11	.05	.06	.07	.30	3.75
North Head	Coast								.22				.37	.24	.53	.50	.16		.05	.75	.34	.51	.53	.10	.12			.03	.01	.41	.27	5.14
Northport	Columbia							.23	.24	.27	T.		.21	.05	.03	.20		T.	.53	.51		.25	.03	.65	.02	.47	.04	.12	.13	.01	.31	4.30
North Sundale	do							.12	.07													.05		.05	.21						.10	0.60
North Yakima	Yakima							.13	.06	.02	T.			.11			T.			.08		.05	.24	.02	.02	T.					.05	0.78
Odessa	Columbia							T.	.03	.08				.43					T.	.13		T.	.97	.06	T.	T.	T.	T.	.03		.41	2.14
Olga	Puget Sound								.21				.04	.18	.24		.11			.30	.26	.72							.03		.49	2.58
Olympia	do								.03				.32	.11	.16	.28			.08	.44		.64	.53	.09	.20	.08				.07	.21	3.24
Omak	Okanogan							T.	.27	.36				.18	T.	T.	.08		.49	.44		.11	.03	T.		.16		.72	T.		.03	2.89
Oroville	do																															‡3.00
Peola	Snake							.40	.02	1.06	.01			1.05	.02			.01	.62	.39		.07	.39	.25	.61	.90		.23	.07		.12	6.22
Pomeroy	do							.02	.15	.41				.60					.10	.50		.25	.10			.25		.33	.06		.25	3.02
Fort Crescent	Coast							T.	.21				.23	.05	.07	.07	.03		T.	.59	.06	.24	T.	.01	.23	.01				.05	.56	2.41
Fort Townsend	Puget Sound								.09				.10	.25	.15					.65	.10		T.		.05	.21				.02	.21	1.83
Prosser	Yakima							T.						.15				T.				.04	.22					.34		T.	0.75
Pullman	Palouse							.53		.11	.03			.71	.01				.20	.22	.06	.06	.43	.11	.12	.20			.02		.06	2.87
Queets River	Coast	T.			.09				.23	T.		T.	1.03	.32	.87	.64	.23	T.		.45	T.	.14	.23	T.	.45	.53			.28	.45	1.19	7.13
Quinialult	do					.03			.32				.49	.35	1.00	.83	.15			1.03		1.13	.20		.30	.20				.40	2.00	8.43
Reardan	Spokane								.20		.16			.20	.40	T.			T.	.30	.33	.17		.17		T.		.30		.05	.30	2.58
Republic	Kettle								.01	.15	.16			.20		.08	.02	.01	T.	.45		.09	.20	.50	.04	.25	T.	.20	.38	.24	.03	3.01
Rex Creek	Columbia								T.	.32						T.				.21		.21	.04			T.					.18	0.96
Ritzville	do						.16			.07	.01			.80					.03	.16			.52					.10			.15	2.00
Robertsville	do																															
Rock Lake	Palouse							.39	.04	.23	.03		.21	.56			.01		.34	.28			.29		.06	.03	.09		.23		.78	3.57
Rosalia	do							.20	.10	.13	.04			.80			T.		.10	.40			.52	.49	.06	.10		.17	.04		.44	3.59
Russells Ranch	Yakima						.23		.04	.11			.12	.02		.11			.32		.13		.21	.02		.07				T.	.10	1.48
Seattle	Puget Sound				T.			T.	.14				.22	T.	.12	.01			.04	.16		.29	.32	.04	.01	.02		.02	T.	.20	.12	1.71
Sedro-Woolley	do				.10			.14	.31	.05			.04	.17	.34	.15	.04		.02	.74	.30	.25	.03	.02	.11	.33	.04		.28		.81	4.27
Sixprong	Columbia							.06	.06			.04	.17									.16						.51	.03	.05		1.08
Skagit Power Dam	Puget Sound							.18	.06	.20				.50	.10	.05	.20			.70	.09	.30		.18		.13	.10		.05		.35	3.19
Snohomish	do								.47				.08		.68	.17				.41		.47	.05	.18	.09					.37	2.97
Snoqualmie Falls	do							.16	.30	.07	T.		.03	.35	.28	.40	.13			.40	.02	.47	.13	.19	.30	.18	.01				.80	4.22
Snoqualmie Pass	Yakima																															
Snyders Ranch	Columbia									.47									T.	.25	.40	.11	.40		T.	.40		.24			.30	2.57
South Bend	Coast					.01			.07				.30	.11	.28	.26	.10		.01	.78	.04	.50	.56	.01	.27	1.23	.05	.02	.11	.21	.52	5.44
Spokane	Spokane							.12	T.	.05			T.	.57	.02		.10		.25	.31		T.	.67	.05	T.	.04	T.	.29	T.	.01	.53	3.01
State University	Puget Sound							T.	.17	.04			T.	.25	.01	.14	T.		T.	.20	.02	.30	.01	.34	.03						.33	1.84
Stokes Ranch	Columbia							.09	.22	.43					.06				.13		.35	.19	.08			.35	.18				.14	2.22
Sullivan Lake									.48	.26	.08		.18	.38	.36		.10		.11	.56	T.	.01	.25	.69	T.	.47	.26	.02	.18	.02	.16	4.57
Sumner	Puget Sound								.21				.04	.22	.16	.08	.05			.55	.05	.30	.08	.32	.13	.55	.37	T.	.07	T.	.51	3.69
Sunnyside	Yakima							.02	.09	T.				.08				T.		T.		.02	.27	T.							T.	0.48
Tacoma	Puget Sound								.12				.19	.09	.11	.02	T.		.16	.28	.01	.33	.13	T.	.27	T.		.01		.30	.14	2.16
Tatoosh Island	Coast				.04				.08		T.	.12	.73	.20	.29	1.24	.44	T.	T.	.35	.12	.67			.87	T.	T.	.01	.02	1.13	.43	6.74
Tieton Canyon	Yakima																															
Touchet	Columbia							T.	.10	.32			T.	.53	T.		T.		.01	.01		T.	.20	.08	T.	T.		.33			.11	1.69
Touchet Ridge	do							.01	T.	.02	.05			.18	.01			.05	.51	.20			.50	1.00	.11	.05	.06	.13	.01		.13	3.02
Trinidad	do								.20	.02				.12								.06	.35		.04						.05	0.84
Vancouver	do								.06	T.			.04	.19	.23	.01		.03	.16	.95		.20	.89	.13	.20	.17			.04	.05	.14	3.49
Vashon Island	Puget Sound								.14	T.			.11	.14	.04	.28				.28	.06	.04	.36	.02	.10	.07		.04		T.		1.68
Wahluke	Columbia							T.	.05														.22	T.	T.	.07						0.34
Wallace	Okanogan							.05	.54	.47				.15	.05		.04		.17	.68		.18	.05	.36	.02	.20	.28	.06	.36		.37	4.03
Walla Walla	Columbia						T.	.14	.25	.24			T.	.43			.02		.08	.09		.09	.29	.08	.02	.01	.01	.20	.02		.14	2.11
Washougal	do								.15					.70	.40	.05			.15	.70	.07	.90	1.90	.70	.20	.10	.02	.03	.02	.02	.38	6.49
Waterville	do																															
Wenatchee	do							.04	.61	.02					.04					.10		.03	.29			T.						1.13
Wenatchee, near	do							.31	.16				.05	.05						.60		.35	.21		.02	.02					T.	1.77
White Salmon	do							.11	.07	T.				.01	.02	.01		T.	T.	.10		.15	.34	.18	.03					T.	.03	1.05
Wilbur	do								.17	.04			.20	.22		.03		.12		.16		.50	.10		T.	.05	T.				.49	2.08
Wind River	do							T.	.07					.27	.40	.11	T.		.10	.26	.15	1.03	1.25	.17	.17	T.	.36	T.	T.	T.	.26	4.60
Winthrop	do							.03	.12	.51			T.		.03		.04			.20	.09	.06	.07	.01		.26	.01	.05	.04		.35	1.87
Yacolt	do													.80	.50	.05				.95	.04	1.26	.82	.55	.20	.25			.08		.45	5.95
Yale	do												.22	.51	.46	.03	T.	T.	.08	1.05	.31	.90	1.61	.12	.56	.07				.05	.30	6.27
Oregon.																																
Agency Plains	Deschutes							.08	.08	.06		T.						T.				.15	.23	T.	.22						.11	0.93
Albany	Willamette								.03					.22	.11	.03	.09		.01	.57	.05	.23	1.19	.16	.05	.34	.21					.08	3.37
Alpine	do									T.									.70	T.		.46	.80	.07	.27	.30		T.	T.		.10	2.70
Ana River	SE. drainage		.42					.05		.28								T.	T.				T.	.05	.18	T.	.45	.71		T.		2.14
Ashland	Rogue	T.						.02	.54									.16	T.	.50		.11	.15	.03	.50	.10	.52	.54				3.17
Astoria	Columbia				.04				.05				.27	.15	.44	.26	.04		.03	1.09	.05	.58	.90	.05	.23	.34	.08		.04	.35	.34	5.33
Austin	John Day													.10	.01				.16				.48	.09	.20	.06	.39	1.14	.06		.16	2.85
Baker	Snake	T.			T.			.05	.90	.61			T.	.03	.01				T.	T.		T.	.24	.01	.32	T.	T.	.32	T.	.02	.25	2.76
Bear Creek	Deschutes							.16		.04				.07				.01		.02			.44	.03	.28		.48	1.62		.19	.04	3.38
Bear Valley	SE. drainage									.21				.04									1.12		.42	.27		.55	.43		.18	3.22
Beech Creek	John Day								.04	.34	.02			.30											.68	.14		.75		.08	.10	2.45
Bellfountain	Willamette								.08					.04	.06	.01			.07	.40		.66	.65	.07	.24	.75	.06				.13	3.22
Bend	Deschutes																															

TABLE 2.—*Daily precipitation for June, 1913. District No. 12*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Oregon—Continued.																																
Big Basin	John Day								.25	.10				.05								.05	.06	.04	1.00		.08	.06	1.00	.07	.08	2.49
Black Butte	Willamette													.15	.25	.15	.20		.65	.30	.15	.25	.60	.65	.35	.20	.25	.15	.05	.25		4.95
Bialock	Columbia							.12												.08			.33								.09	0.62
Blue Mtn. Sawmill	Umatilla							.55		.52	.20			.70					.45	.12	.02	.95	.67	.41	.07	.04	.03	.80	.08		.40	6.01
Brogan	Malheur																															
Buena Vista	Snake		.90				.20			.50	.20			T.	.02						.05	.30	.40	.20	T.	.01	.20	.30		.20	.20	3.68
Burns	SE. drainage						.04			.24				.04						.27			.49		.32	.03	.63	.87				2.93
Burns Mill	....do							.07	.04											.20		.78				.27	.14	.55	1.21			3.26
Butte Falls	Rogue								.42	.42				.02				.10		.41		.24	.20	.02	.38	.02	.32	1.17	.06		3.87
California Gulch	Umatilla							.56	.30					.60								.44	.90	.38	.18			.20	.08		.31	4.04
Camp Creek	Deschutes							.17		.08				.08						.05			.28	.05	.17		.07	.59			.23	1.77
Cascade Locks	Columbia													.21	.22	.14	.01		.11	.23	.15	.66	1.28	.23	.18						.23	3.65
Cascadia	Willamette								.23	.04				.74	.15	.13	.21	.65	.66	.03	.51	1.00	.29	.62	.22	.06	.01	.05	.07	.47		6.14
Cazadero	....do				T.				.17	.08				.25	.11	.30	.13	T.	.08	.65	.53	.45	1.42	.13	.11	.17		T.	.02		.30	4.90
Central Point	Rogue																															
Christmas Lake	SE. drainage	.23	.08	T.				.20	.05	.77			T.		.01		T.		T.	.05		T.	.37	.27	.16		.27	.81	.04	.04		3.35
Clear Lake	Willamette							T.	.41	.08				.18	.24	T.		.02	T.	.77	.05	.50	1.27	.10	.46	.09	1.56	.05	.07	T.	.40	6.25
Cliff	SE. drainage		.49	.02			T.	.42		.18									.09				.58	.03	.15		.84	.75	.06	T.		3.61
Columbia Mine	Snake	.12		.10				.03		.39	.22		.05	.02	T.			T.	.05	.10			.80	.15	.40	.40	.40	.30	.18	T.	.21	3.92
Combs Flat	Deschutes								.24		.35						.05					.55	.30								.05	1.54
Condon	John Day							.65	.15				.06	.15									.45	.54	.04	.21	.02				.53	2.80
Coquille River lighthouse.	Coast				.03				.09				.10	.07	.22				T.		.05	.62	.35	.19	.20	T.					.27	2.19
Cornucopia	Snake							.28		.77	.02			.15	.08					.23			1.27	.14	.18	.51	.40	.43	.48	.03	.56	5.53
Corvallis	Willamette				T.									.19	.07	.12				.46	.02	.63	.80	.08	.29	.11				.01	.10	2.88
Cracker Creek	Snake		T.						T.	.60		T.			T.	T.	T.		.30		T.	T.	.60	T.	.40	.30	T.	.40	T.		T.	2.60
Crescent	Deschutes		T.	T.				.35	.39	.68										.37		.15	.47	.04	.52	.02	.44	1.31			.01	4.75
Culver	....do							.20	.28													.14	.27		.33			.02				1.24
Dayville	John Day						T.	.04	T.	.02			T.	.27		T.			T.	.06		T.	.52	.01	.33	.04	.35	.56	.04	T.	.85	3.09
Deadwood	Coast				.01			T.	.10				.05	.10	.05				.18	.38		1.33	.90	.10	.28	.17					.28	3.93
Diamond	S. E. Drainage									.38													.10	.36	.30	.10	.07	.48	.34	.04		2.17
Doraville	Columbia				.02				.03	T.			.10	.04	.08	.43	.01	T.	.06	1.25	T.	.36	.79	.13	.03	.11			.06	.14	.14	3.78
Drain	Umpqua								.15	.02				.12	.03				.18	.32	.01	.49	.66	.08	.34		.20	.01	.01		.07	2.69
Dufur	Columbia							.23	.08	.01			T.					.01	T.	T.		.10	.45	.03	.12	.16				T.	.36	1.55
Echo	Umatilla							.25						.10				.07				T.	.41	.05				.26			.30	1.44
Ella	Columbia							.10	T.	T.			T.						T.				.69						T.	.25	.10	1.14
Embody	S. E. Drainage		.20						10	.34									.02	.10			.28	T.	.19		.70	.62				2.55
Eugene	Willamette								.18	.02				.11		.01	T.	.14	.03	.70	.03	.55	.83	.05	.28	.19	.13	.04	.01	.04	.03	3.37
Fairview	Coast																															
Falls City	Willamette																															
Fir Glen	Coast								.03					T.	.11				.20	.48		.04	.34	.06	.01		.12	.03			.09	1.51
Florence	....do				.02			T.					.14	.21	.18					.39		.98	1.35	.05	.16	.05					.35	3.88
Follyfarm	Malheur						.09	.07		.16													.28		.33			.34				1.27
Forest Grove	Willamette																															
Fort Rock	S. E. Drainage	T.	.25	.06					.15	.30			T.		T.		T.		.10	T.		.25		.07	.16	.08	.26	.70	T.	.05		2.43
Galice	Rogue								.08						T.				.46	.23		.08	.08	.01	.04		.19	.16			T.	1.33
Gardiner	Umpqua																															
Gibbon	Umatilla																															
Glass Butte	Deschutes	.42	.11				.12	.40											.10				.50	.20	.20	.05	.45	.60	.10		.10	3.35
Glencoe	Columbia							.67						.18				.02	.11				.70						.70		.45	2.83
Glendale	Umpqua																															
Glenora	Coast												.11	.35	.60	.21	.02		.40	1.07	.40	.70	1.01	.15	.15	.08		T.		.60		5.85
Gold Beach	Rogue																															
Golden Falls	Coast				T.			T.	.07				T.	.13	.16	.13			.05	.38		.91	1.33	.42	.51	.02	.25	.02	.17		.40	4.95
Grants Pass	Rogue								.11					.01					.21	.31		T.	.04	.02	.12	.08	.28	1.09			T.	2.27
Grass Valley	John Day							.36	.07					.08						.05		.25	.70	.05	.01						.18	1.75
Greenhorn	Snake	T.	.08					.70	.33		.41		T.	.08	.08				.96			.03	1.00	.22	.53	.23	.48	.63	.06		.20	6.02
Gumboot	....do							.34	.17	1.20	.10	T.		.09	.03				.07	.17			.37	.65	.30	.31	.04	.56	.37		.50	5.27
Gurdane	Columbia								.06	T.				.05	T.					T.		T.	.04	.03				.08	.01		.03	0.30
Happy Home	Umpqua							.02	T.				T.	.32	.02	.04				.25	.10	.70	.34	.22	.16	.05	.75	.70	.10			3.77
Harbor	Coast				T.			.23	.02	T.		T.	.06	.22	.32				.18	.28	1.05	1.23	.07	.09	T.	T.	.11	T.	T.	T.	.09	3.95
Hay Creek	Deschutes								.28	.04										.24		.18	.36	.01	.23	.03		.12			.61	2.10
Hazeldell	Willamette						.09	.37	T.				.12	T.	T.			.35		.37	T.	.75	.10	.84	.30		.33	.09			.23	3.94
Headworks	....do													.77	.30	.17	.15	.12	.13	.82	.30	.60	1.72	.62	.25	.13	.03	.06	.08		.58	6.83
Heppner	Columbia							.09		.07			.01	.28	T.		T.	.05	T.	T.		T.	.37	.16	.08	T.		.03	.07		.37	2.18
Hermiston	Umatilla							.12	.08					.08				.01										.35	.15		.15	0.94
Hilgard	Grande Ronde					T.	.10	.20	.10	.30	.50	.05						.10	.20	.10		.10	.20	.70		T.	.20	.50		.05	.10	3.50
Hillcrest Orchard	Rogue																															
Hollywood Orchard	....do								.31					.03			T.	.18	.09	.65	T.	.02	.12	.04	.03	.02		.37	1.11			2.97
Hood River	Columbia							.08	.11											.20		.22	.35	T.	T.						T.	0.96
No. 2	....do							.08	.06						T.				T.	.10		.15	.30	.04	T.						T.	0.73
No. 3	....do							.06	.09							T.		T.		.10		.18	.41	.08						T.	.05	0.97
No. 4	....do							.15							T.				T.				.98							T.		1.13
No. 5	....do																															
Hoover	Willamette							.06	.26	T.				.13	.22	.03	.03	.08	.07	.75	.06	.47	1.42	.14	.36	.02	.47	T.	.05	T.	.34	4.96
Howardville	Grande Ronde							.35	.24	1.10	.05		.03	.83	.01					.35		.03	.87	.21	.14	.09	.27	.39	.02		.30	5.28
Huntington	Snake							T.	.01														.05		.04	.03		.06			.02	0.21
Ibex Mine	John Day		.04					.03	.20	.40				.07	.01				.06				.50	.52	.28	.12	.16	.34	.37		.38	3.48
Imperial	Deschutes	.02					.01	.38	.01	.07			T.	.04					T.	.05	T.		.33	.17	.18	.05	.16	1.20	.10	.02	.07	2.86
Ironside	Snake								.40	.41													.35	.04	.55	.15		.52	.15		.55	3.12
Jacksonville	Rogue								.40					.16					.20	.10	.52		.10	.08	.07	.05		.44	1.07			3.19
John Day	John Day		.15					.07		.39													.43	.10	.11	.40	.10	.28	.50			2.53
Jordan Valley	Owyhee				.04				.03	.24				.03									.60	.05	.34	.03	.20	.45				2.01
Joseph	Grande Ronde							.07	.08	1.17	.20	.05								.20			.10	.20	.55	.70	.50	.23	.34		.16	4.55
Klamath Agency	Klamath																															
Klamath Falls	....do	.03							.16	.44										.57			.20		.05	.02	.52	.55				2.54
La Grande	Grande Ronde																															
Laidlaw	Deschutes								.42	.17			T.						T.	T.	.28		.07	.21		.25	T.	.01	.80		.05	.18	2.44
Lakeview	Pitt	T.	T.	T.	.09			.96	T.	.11										.06	.10			.77		.03	.04	.74	.13	.19			3.22
La Pine	Deschutes		.18					.03	.27	.08				.01				.03		.24			.42		.48	.05		1.55			.02	3.36
Lilyglen	Rogue	.44	.03					.01	.51	.05											.22		.03	.47	.09	T.	.13	.87	.77	.17	.04	3.83
Long Creek	John Day							T.	.26	.20	T.			.40			T.		T.		T.	.05	.40	.20	.80	.10	T.	.64	.28	T.	.27	3.60
McKenzie Bridge	Willamette							.31	.40	.10				.27	.55	.04	.02	.04	.22	.58	.08	.31	1.52	.17	.85	.13	.07	.04	.11	.07	.65	6.53
McMinnville	....do													.13	.17	.05				1.36		.46	.89	.13	.01	.19				.08	.29	3.76
Marshfield	Coast				.04	.01		.01	.03					.04	.24					.14		.42	.90	.32	.22	.07		.02	.03		.08	2.57
Maury	Deschutes	T.						.10	T.				.02						.06	.02		1.05	.50	.02	.17		.95	.15		.20		3.24
Meadowbrook Rnch.	Columbia							.14	.15					.02				.01		.14		.25	.45	.10	.08						.02	1.36
Medford	Rogue	.04							.34					.02			T.	.05	.15	.75		.02	.13	.05	.03	.01	.36	1.12	.02			3.09
Merrill	Int. Drainage								.09	.28												.17					.40	.45		T.		1.39
Metolius	Deschutes							.14	.10	.10											.13		.32		.24					.24		1.27
Miramonte Farm	Willamette	.03							.04	.02				.25	.21	.03		.01	.13	.76	.02	.69	1.11	.20	.48	.24				.07	.11	4.40

TABLE 2.—*Daily precipitation for June, 1913. District No. 12*—Continued.

Stations.	Watershed.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Oregon—Continued.																																
Mountain Home	Columbia				.08				.05				.21	.04	.14	.28			.07	.88		.68	.80	.06	.07	T.			.06	.28	.18	3.88
Mount Angel	Willamette													.60	.07			.42	1.02		.45	.35	.50	.30	.25	.04				.07	4.07
Mountain Ranch	Rogue								.18		T.								.35	.20				.10	.30	.20	.50	1.00				2.83
Mount Hood	Columbia						.04		.06						.01	.02		T.		.17		.38	.46	.12								1.26
Musick	Umpqua							.02	.09	.05				.55	.19			.03	.34	.23	.15	.20	1.62	1.33	.62	.41	.02	.09	.01		.38	6.33
Newport	Coast				.08				.12				.23	.45	.98	.28	.06			.58	.05	.85	1.33	.09	.20	.66		.06	.08	.16	.36	6.62
Ochoco	Deschutes							.05	.56	.07	.06					.01					T.	.11		.51	.75	.01		.06		T.	.05	2.24
Ochoco Creek	....do							.32		.10									.10				.46	T.	.45	.14		.11				1.68
Odell	Columbia																															
Ortley	....do							.32	.03											.07	.51	.57		.05						T.	.03	1.58
Owyhee	Owyhee				T.				.07	.28													.28		.26			.46	.03			1.38
Paisley	SE. drainage							.50		.20	.15		T.				T.		.12	T.			.05		.07		.15	.45	.26			1.95
Parkdale	Columbia							.05	.03				.03	.02				.03		.13		.28	.48		.05						.03	1.13
Pendleton	Umatilla							.01	.10	.22				.77	.09					.01			.50	.01		T.		.16	.02	.04	.25	2.26
Peninsula	Deschutes							.02	.32	.14									.02	.02	.10	.25		.14							.10	1.11
Persist	Rogue	.15				.08		.10	.43	.13			.08							.38		.70	.30			.32	.42	.80	.16			4.17
Pilot Rock	Umatilla							.50	.18	T.	.03		T.	.66	.08		T.			.01			.35	1.8	.43	.01				.10	.42	2.45
Portland	Willamette								.05	.01			.09	.10	.26	T.	T.	.07	.25	.85	.03	.56	.82	2	.33	.12		T.	T.	.16	.02	4.24
Port Orford	Coast							.07	.14				.45	.14	.18	.10			.15	.25		.78	.8	10	T.	.20					.56	3.90
Post	Deschutes		T.					.12		.14			.10										.01	.41	.28		.04	.91	.04		.24	2.31
Powell Butte	....do							.30		.08									.20	.30			.30		.70		.50	.30		.15	.10	2.93
Power House	Columbia							.57	.43	.51			.12	.30				T.	.67	.37	T.	.20	.76		.10		.68		.06			4.77
Prairie City	John Day						.03	.26	.03	.26	T.			.02						T.			.59	.18	.28	.05	.27	.71	.23		.18	3.09
Prineville	Deschutes												T.	T.						T.	T.	T.	.65	T.	.25		T.	.24			.15	1.29
Prospect	Rogue	.06	.02					.02	.35	.03				.03						.56		.07	.62	.03	.30	.05	.27	.81				3.22
Rager Creek	Deschutes	.04								.01				.09						.06		.04	.52		.47		.04	.83			.26	2.36
Ramsey	Columbia					.12	.24															.14	.24	.13	.06	.03					.67	1.63
Range	John Day		T.				T.		T.	.40	.20		.50									.60		.20	.40	.10	.30	.24	.46	.50		3.90
Ray Creek	Columbia							T.						.31				T.	.18			T.	.37	T.	.15			.85			.53	2.39
Redmond	Deschutes																															
Reston	Umpqua								.02	.02				.04	.13				.61	.18		.25	.23	.11	T.		.14	.01			.06	1.80
Richland	Snake																															
Riddle	Umpqua								.22										.40	.42		.08	.10	.01	.18		.30	.26			.05	2.02
Riley	SE. drainage																					.50		.70		1.10	.80			.01		3.11
Rio Hermoso	Deschutes							.37	.15	.39									.04	.06			.47		.05	.08					.09	1.70
Riverdale	....do	.04				.20				.07										.05			.70	.10	.13		.24	.89		.12		2.54
Riverside	Malheur			.10	.20			T.	.20	.10													.25	.30	.21	.08	.08	.85	.50		.30	3.17
Robbville	Deschutes									.36													.26			.40	2.00					3.02
Roseburg	Umpqua				T.			.15	.08	T.			.07	.01	.07		T.	.03	.82	.16	.04	.50	.02	.38	.36		.27	.07		T.	.24	3.27
Rosland	Deschutes							.07	.31	.10								T.		.20		.08	.47	.15	.56	.08	.35	1.18	.04	.06	.08	3.73
Salem	Willamette								.08					.04	.02	.12			.03	.80	.03	.50	.66		.24	.80				.06	.10	3.48
Seneca	SE. drainage		T.					T.		.33					T.			T.	T.	.13		T.	.03	.76	.43	.17	.11	1.02	.39		.31	3.68
Silver Lake	....do		.03					.03	.08	.08													.25		.10	.02	.48	.62				1.69
Siskiyou	Rogue							.06	.58											.06			.06	.29	.10	.18	.63	.93	.08			2.97
Sisters	Deschutes							.01	.47	.08									.04	.08			.25	.28			.01	.04	.38		.01	1.65
Sparta	Snake								.10	.55			T.										1.20	.40	T.	.35	.20	.40	.10			3.30
Stafford	Willamette								.03					.21	.46	.05		.03	.15	1.20	.10	.70	1.00	.10	.40	.19	.20	.01	.02	.05	.35	5.25
Starkey	Grande Ronde	.53						.10	.47		.04		T.	.44					.64	.18			.86	.21		.35	T.	.37			.37	4.56
Summit	Willamette												.03	T.	.07	.10	T.		.25	.22	T.	.91	.67	.07	.08	.26	T.		.04	T.	.28	2.98
Susanville	John Day	.10					T.	.01	.30	.20			.10	.01						.01		.20	.25	.30	.40	.15	.10	.04	.60		.01	2.78
Tablerock	Rogue								.34	.06				.01				.17	.35	.88		.06	.18	.01	.10	.02	.24	.85	T.			3.27
Talent	....do								.34									.06	.09	.63		T.	.19		.10	.25	.61	.79				3.06
Tamarack	John Day							.25	.03				.12		T.					.25	T.	.03	.35	.05	.45	.13		.33	T.		.51	2.50
The Dalles	Columbia	T.				.12		.39	T.					T.				T.		.12	.13	.70			.03						.06	1.55
Tillamook	Coast									.05				.10	.32	.70	.75	.30		.60	.60	1.10	1.05	.10	.33	.22	.10		.19		.09	6.60
Toledo	....do							.05						.50	.30	.05				.60	.10	1.20	1.15		.40	.60		.10		.10	.35	5.50
Trail	Rogue	T.							.45	.16				.04				.07	.25	.76	.11	.27	.23	T.	.15		.30	.65				3.44
Umatilla	Columbia							.49	.03				.08				T.		T.		T.	.50	.15				.05	.25		.09		1.64
Union	Grande Ronde							.22		.82	T.			.05	.01				.04	.20		.01	.25	.36	.34	.11	.03	.87	.15		.22	3.68
Vale	Malheur							.75	.03	.23													.15	.02	.79	.52		.56	.12		.21	3.38
Valley Falls	SE. drainage						.28			.50											T.				.60		.50	.62				2.50
Van	Malheur																															
Vida	Willamette								.33	.05				.25	.15	.03		.05	1.95	.30	.39	.80	2.01	.19	.69	.20	.07	.03	.07		.48	8.04
Vistillas	Pitt		.27		.26			.06		.15									.04	.04			.32		.18	.22	.43	.76	.04			2.77
Waldo	Rogue							T.					T.						.46	.13		.04		.11	.09		.51	.84				2.18
Wallace Orchard	Willamette								.05				T.	.41	.05	.12	.02		.03	.96		.56	.67	.05	.39	.10	.05			.10	.17	3.73
Walloupa	Grande Ronde							.18	.22	.77	.40			.39	.04					1.14			.55	.42	.15	.20	.02	.57	.04		.27	5.36
Wallowa	....do							.05	.11	1.07	.03	T.	T.	.13	T.				.09	.16		T.	.55	.31	.15	.12	.48	.42	.09		.13	3.89
Wamic	Deschutes							.11	.11				T.									.15	.50	T.	.10	.15	.13				.29	1.54
Warmsprings	....do						T.	.20	.05								.15			.21		.23	.01	.07	.21	.04				.07	.01	1.25
Wasco	Columbia							.36					T.	.03						.10	.20		.42								.11	1.22
Welches	....do														.32			.51	1.81			.75	.75	1.55	.91			.05	.14		.24	7.03
Weston	Walla Walla							.35	.31	.05			.22	.24	T.	T.	T.	T.	.20	.12		.34	.28	.08	.36	T.	T.	.65	.02	.12	.02	3.36
Whitaker	Deschutes	T.				T.		.05	.10	T.							.02	T.		.09		T.	.27	T.	.18	.07	.32	1.99	.02	T.	.10	3.21
Williams	Rogue								.16										.05	.20	.13		.15	.03	.25		.55	1.25				2.77
Yonna	Int. drainage							.23	.15	.11									.04	.04		T.	.25	T.			.43	.47				1.72

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for June, 1913. District No. 12, Columbia Valley.*

Date.	Montana.				Afton, Wyo.		Date.	Montana.				Afton, Wyo.,	
	Kalispell.		Missoula.					Kalispell.		Missoula.			
	Max.	Min.	Max.	Min.	Max.	Min.		Max.	Min.	Max.	Min.	Max.	Min.
1	85	48	87	46	78	33	17	76	42	74	44	68	42
2	82	53	88	42	76	35	18	84	48	86	50	78	41
3	82	54	87	46	77	35	19	85	52	86	54	80	49
4	83	46	84	44	76	36	20	68	46	74	44	75	41
5	73	48	78	46	78	36	21	73	40	80	40	81	36
6	78	46	84	38	72	36	22	66	45	74	41	80	37
7	86	48	87	47	75	35	23	66	53	70	54	68	45
8	82	54	77	56	76	39	24	63	47	70	50	67	39
9	84	52	85	51	73	37	25	58	46	64	50	64	44
10	72	49	77	51	70	43	26	70	48	66	48	61	45
11	79	52	79	53	64	36	27	70	50	71	48	63	44
12	78	53	74	55	60	36	28	62	49	68	50	59	44
13	68	50	73	50	71	36	29	62	50	68	52	62	44
14	62	40	67	46	74	33	30	70	46	72	44	68	34
15	68	34	71	34	78	37							
16	77	41	78	41	80	38	Means	73.7	47.7	76.6	47.2	72.1	38.9

Date.	Idaho.																							
	Boise.		Bonners Ferry.		Hotspring.		Lewiston.		Mackay.		New Meadows.		Pocatello.		Salmon.		Shoshone.		Vernon.		Wallace.		Weston.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	88	58	85	41	90	52	95	54	74	45	86	38	82	48	83	42	.....	.....	79	42	87	44	85	41
2	89	56	85	44	93	52	95	54	73	47	84	41	84	48	86	42	.....	.....	.....	.....	86	46	86	42
3	86	56	82	47	91	50	91	54	76	46	82	40	83	50	88	46	.....	.....	.....	.....	82	47	86	42
4	82	62	77	48	87	56	86	53	73	44	78	44	81	51	79	44	.....	.....	.....	.....	78	44	83	42
5	80	53	70	45	90	55	79	51	73	47	77	44	78	49	81	44	.....	.....	58	44	74	40	80	42
6	85	55	79	39	89	60	87	50	71	46	82	35	76	51	89	44	.....	.....	60	52	83	38	78	43
7	85	61	86	40	81	56	93	52	74	43	80	42	82	50	87	48	.....	.....	65	50	87	44	86	42
8	78	60	82	52	84	56	78	59	72	45	76	44	80	59	78	46	.....	.....	75	49	79	49	81	46
9	68	52	73	50	77	54	67	57	70	47	71	43	79	57	74	48	.....	.....	74	44	69	47	83	46
10	68	49	71	48	66	50	69	57	70	45	64	42	58	51	70	44	.....	.....	70	48	60	52	69	45
11	71	51	78	47	62	50	83	57	67	39	66	47	64	42	63	43	.....	.....	54	42	76	52	64	43
12	77	51	78	47	73	53	86	53	57	40	78	40	66	45	56	47	.....	.....	62	34	77	44	64	42
13	80	59	62	47	84	57	69	55	70	40	72	44	72	50	73	43	.....	.....	71	45	68	48	75	40
14	73	51	56	44	83	51	66	53	68	45	64	40	75	54	76	48	.....	.....	85	45	60	42	80	48
15	81	47	71	33	89	50	74	47	75	40	70	40	82	47	81	37	.....	.....	78	48	73	34	85	44
16	79	52	67	41	84	52	73	51	77	39	72	31	84	52	81	43	.....	.....	81	46	69	40	81	52
17	85	55	77	35	90	52	84	49	75	49	80	38	75	58	81	46	.....	.....	72	46	81	38	83	44
18	88	61	80	45	93	64	89	56	73	42	85	41	82	53	81	44	.....	.....	78	42	84	47	87	46
19	76	56	75	53	82	57	72	58	75	40	69	43	85	63	86	44	.....	.....	82	45	74	49	81	51
20	76	45	67	46	80	43	78	54	77	41	71	29	76	50	82	44	.....	.....	71	46	69	47	86	40
21	78	50	71	38	89	51	80	52	76	44	72	28	86	46	82	41	.....	.....	80	39	73	40	84	40
22	71	57	62	46	85	58	69	60	73	41	60	48	84	53	75	50	.....	.....	79	45	74	49	88	44
23	72	54	63	53	72	53	74	60	66	40	67	48	67	56	72	46	.....	.....	70	51	66	54	74	52
24	61	51	69	48	73	51	74	56	59	38	60	41	65	49	67	48	.....	.....	55	42	67	49	71	40
25	66	51	65	48	72	50	68	55	66	41	59	45	65	51	64	47	.....	.....	63	48	60	48	66	49
26	69	51	70	50	72	51	77	53	64	41	64	36	66	50	60	45	.....	.....	60	45	71	45	62	49
27	65	53	60	51	72	50	73	56	62	41	62	43	71	50	68	42	.....	.....	62	45	68	48	69	47
28	65	51	67	53	72	46	76	58	60	41	63	48	57	50	73	39	.....	.....	57	47	62	56	63	50
29	73	46	65	48	77	48	80	54	60	42	68	38	68	50	72	41	.....	.....	60	45	69	50	61	47
30	74	54	66	45	80	54	76	60	63	41	69	46	69	52	71	47	.....	.....	65	40	62	44	74	39
Mean	76.3	53.6	72.0	45.7	81.1	52.7	78.7	54.6	69.6	42.7	71.7	40.9	74.7	51.2	76.0	44.4	.....	.....	69.1	45.0	72.9	45.8	77.2	44.6

TABLE 3.—*Maximum and minimum temperatures at selected stations for June, 1913. District No. 12*—Continued.

Date.	Washington.																									
	Aberdeen.		Blaine.		Colville.		Kosmos.		Lakeside.		North Head.		North Yakima.		Odessa.		Port Crescent.		Seattle.		Sixprong.		Spokane.		Tacoma.		Tatoosh Island.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	81	48	72	45	95	42	90	46	90	53	60	52	93	57	93	45	74	43	77	56	97	58	90	51	75	53	61	50
2....	67	47	70	46	92	44	87	44	92	55	56	52	94	60	92	47	63	44	81	54	97	64	90	54	82	53	56	51
3....	64	45	74	50	92	45	83	42	86	56	53	52	80	58	90	46	59	48	73	52	92	60	87	52	75	52	53	49
4....	65	50	72	48	82	44	70	50	77	54	55	50	86	58	83	49	58	46	63	51	84	57	78	54	68	50	56	48
5....	68	44	64	45	80	39	73	38	81	52	54	48	77	51	77	44	56	42	64	49	80	55	73	48	66	48	56	47
6....	78	40	70	38	85	38	83	37	85	51	55	48	83	52	84	40	65	37	71	48	88	49	80	46	70	47	58	47
7....	66	50	70	45	90	41	76	50	78	55	56	52	77	57	86	55	61	40	67	53	87	57	88	52	70	51	55	50
8....	65	52	62	49	85	51	65	49	79	57	59	51	76	57	82	56	57	47	58	53	77	57	78	60	58	52	57	48
9....	70	43	66	46	75	54	64	52	74	54	56	51	69	55	79	52	59	45	65	52	87	59	68	56	65	51	57	48
10....	70	40	68	42	74	54	61	51	82	53	60	50	78	54	76	53	60	42	69	50	86	60	70	55	71	48	57	48
11....	72	50	66	48	85	46	74	41	85	55	61	53	82	51	82	43	62	49	73	49	89	64	79	57	73	48	57	50
12....	61	54	70	51	83	44	78	48	83	59	56	54	82	55	84	48	59	47	66	55	86	45	81	51	67	52	58	51
13....	64	50	63	43	80	54	80	38	75	55	58	50	78	54	79	55	57	40	62	50	75	40	70	53	62	50	57	48
14....	64	47	62	46	65	40	81	39	72	45	56	49	72	40	68	42	55	40	60	49	77	50	63	48	59	48	55	47
15....	58	47	66	43	75	35	79	40	74	45	55	50	72	50	75	40	56	41	65	47	80	52	72	45	66	46	55	48
16....	68	43	66	48	75	43	82	46	74	50	58	49	74	48	73	51	59	34	64	48	77	52	69	49	66	45	60	45
17....	79	44	69	41	79	43	84	51	80	49	61	53	78	54	82	42	60	42	71	52	83	57	81	48	68	52	63	50
18....	79	51	72	46	81	43	63	52	86	53	63	53	86	57	86	46	71	44	72	54	90	60	84	56	74	55	64	54
19....	62	52	68	51	72	54	60	46	74	57	58	52	84	57	77	56	56	49	58	51	78	68	65	55	58	51	58	51
20....	71	48	68	50	75	44	75	47	76	50	64	52	74	42	74	44	60	48	68	51	83	61	69	49	69	50	60	51
21....	68	54	66	51	80	42	71	54	73	54	69	53	77	54	79	50	59	47	70	52	76	58	76	50	71	52	62	51
22....	69	55	67	46	66	50	65	50	68	54	62	56	75	57	69	56	63	46	64	54	78	60	63	54	64	54	65	51
23....	66	55	68	51	65	54	66	53	76	54	61	54	73	52	72	54	63	52	66	54	75	55	69	57	66	54	61	55
24....	64	54	67	48	73	47	67	53	77	53	59	55	74	48	72	47	64	49	65	54	75	52	68	52	65	54	60	54
25....	69	54	67	48	70	48	73	52	74	56	60	56	75	52	70	52	64	52	65	55	75	48	65	51	68	55	63	54
26....	71	48	66	54	75	52	68	48	82	50	60	55	78	48	74	47	65	52	68	54	81	49	72	52	70	53	64	55
27....	64	52	70	48	71	55	67	45	79	57	60	56	82	56	71	56	63	54	68	54	81	58	64	57	68	53	60	54
28....	68	54	70	54	74	52	66	46	82	56	60	54	78	55	77	53	60	47	63	54	75	54	73	55	65	55	60	53
29....	65	54	69	47	77	52	64	53	84	54	60	55	78	54	77	50	59	48	69	53	81	58	73	53	69	52	59	53
30....	68	57	67	57	66	49	70	56	81	57	61	54	80	58	74	56	60	46	67	56	80	60	65	53	68	57	59	53
Mns..	68.1	49.4	67.8	47.5	77.9	46.6	72.8	47.2	79.3	53.4	58.6	52.3	79.2	53.4	78.6	49.2	60.9	45.4	67.1	51.9	82.3	55.9	74.1	52.4	67.9	51.4	58.9	50.5

Date.	Walla Walla, Wash.		Oregon.																							
			Ashland.		Baker.		Eugene.		Gold Beach.		Hermiston.		Marshfield.		Portland.		Prineville.		Roseburg.		The Dalles.		Vale.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	93	62	92	58	84	50	88	50	92	58	97	47	72	44	87	60	.....	.....	93	55	94	54	92	51
2	94	67	85	57	82	51	86	44	85	57	98	51	66	50	87	56	.....	.....	88	55	97	61	94	52
3	91	63	84	50	82	49	82	42	84	50	96	48	64	50	82	53	.....	.....	87	50	93	58	93	51
4	80	57	78	46	74	46	71	42	78	46	92	47	61	50	68	52	.....	.....	67	51	86	58	90	57
5	78	52	79	45	73	41	76	40	79	45	88	45	63	40	72	47	.....	.....	76	43	86	58	86	54
6	87	54	82	46	81	42	81	44	82	46	90	44	65	40	80	50	.....	.....	82	43	86	50	88	53
7	83	62	69	54	77	56	74	40	69	54	85	60	66	49	73	57	.....	.....	74	47	86	61	90	57
8	77	55	59	47	75	50	68	34	59	47	83	48	64	51	65	54	.....	.....	63	53	74	58	85	52
9	64	53	68	45	61	47	71	38	68	45	85	49	63	44	70	52	65	40	67	48	78	57	77	55
10	77	56	70	45	64	48	74	40	70	45	82	47	66	43	75	48	72	35	75	43	79	55	75	49
11	81	55	77	45	70	44	75	42	77	45	84	52	72	40	78	50	80	30	80	44	86	54	80	54
12	85	62	78	50	75	46	76	48	78	50	87	53	66	51	73	56	83	40	77	50	85	58	83	44
13	69	53	62	51	64	49	72	50	62	51	82	52	64	50	66	54	70	48	63	47	77	57	85	64
14	69	50	66	46	64	45	66	47	66	46	75	49	64	44	60	51	68	38	65	45	72	46	80	48
15	71	50	71	45	68	42	69	50	71	45	79	40	65	46	71	48	73	42	68	49	77	52	84	43
16	71	53	75	45	67	44	68	50	75	45	75	41	66	38	68	48	74	40	72	42	77	50	85	53
17	83	52	77	50	77	46	70	49	77	50	84	45	70	47	80	56	82	36	79	52	85	53	89	55
18	79	58	70	49	81	50	72	53	70	49	89	51	66	49	80	57	85	39	72	52	90	61	94	57
19	70	56	63	45	70	46	65	52	63	45	77	58	66	50	64	54	67	40	67	50	80	56	89	60
20	79	53	74	43	73	38	72	49	74	43	82	48	71	44	74	54	79	31	79	51	80	52	81	40
21	81	58	71	48	73	45	69	53	71	48	85	49	64	56	70	55	76	42	71	58	81	58	85	40
22	70	60	71	56	61	52	70	53	71	56	78	48	65	58	71	58	70	52	72	59	74	59	74	58
23	72	57	72	54	64	48	70	55	72	54	82	47	63	57	67	56	68	43	70	57	76	59	76	54
24	66	57	68	51	54	45	62	54	68	51	85	52	65	54	65	55	68	42	64	54	75	56	73	52
25	73	53	67	49	58	46	65	50	67	49	75	49	64	50	66	54	67	42	70	53	78	54	69	51
26	78	54	60	49	66	41	69	48	60	49	87	47	64	50	72	52	67	42	59	54	83	50	72	45
27	70	58	56	48	55	49	69	54	56	48	80	55	66	52	70	55	66	48	64	53	80	60	68	54
28	74	56	72	49	62	48	70	50	72	49	78	57	68	54	67	56	68	36	70	53	78	57	72	54
29	79	56	76	44	69	44	74	51	76	44	84	55	71	48	70	55	77	37	79	54	81	54	80	50
30	77	58	76	49	69	51	74	50	76	49	83	55	65	56	73	59	75	48	68	56	80	60	75	57
Mean.	77.4	56.3	72.3	48.6	69.8	46.6	72.3	47.4	72.3	48.6	84.2	49.6	65.8	48.5	72.1	53.7	72.7[h]	40.5[h]	72.7	50.7	81.8	55.9	82.1	52.1

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning: the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

WEATHER, FORECASTS AND WARNINGS.

By EDWARD H. BOWIE, District Forecaster.

NORTHERN HEMISPHERE PRESSURE.

Alaska.—Lows occurred about the 4th–5th, 10th, 22d, 24th, and 28th; and highs about the 2d, 6th–7th, 13th, 16th, and 18th–19th. During the latter half of the month fluctuations were not marked.

Honolulu.—Pressure was generally low during the first decade and normal or above during the remainder of the month. Lows occurred on the 2d–3d, 4th–5th, 6th, 9th–10th, 11th–12th, 20th, 28th, and last day of the month; and highs on the 8th, 10th–11th, 12th, 15th, 17th–18th, and 22d.

Iceland.—Pressure was generally low during the first half of the month and high during the latter half. Lows occurred on the 1st, 3d, 7th–8th, 10th–11th, 14th–15th, 21st–22d, 26th–27th, and 28th; and highs on the 4th–5th, 9th, 11th–12th, 17th–18th, 25th, and last day of the month.

Azores.—Pressure averaged well above the normal for the month. Lows occurred on the 3d, 14th, 16th–17th, and 28th; and highs on the 1st, 5th, 10th, 15th, 19th–20th, and 25th.

Siberia.—Pressure averaged slightly below over northern, and slightly above normal over southern portion. Lows occurred about the 7th–8th, 10th, 15th, 22d–23d, 24th–25th, and 27th; and highs about the 6th, 8th–9th, 18th–20th, and 28th–29th. The transference of highs and lows across Siberia was not well defined.

In the United States the month opened with pressure low over the eastern and high over the western portions of the country. The high-pressure area that was over the western Plains States at the beginning of the month moved to the Atlantic coast during the two days following, causing slightly cooler weather over northern districts.

The low-pressure area which followed was in turn succeeded by a high-pressure area that was central over the northern Plains States on the morning of the 3d. It advanced eastward to the middle Atlantic coast by the evening of the 5th, causing cooler weather over northern districts.

A low-pressure area that appeared over the Canadian Northwest on the evening of the 4th moved slowly eastward to the Grand Banks by the evening of the 8th. It was attended by a troughlike formation, and showers occurred throughout the country east of the Rocky Mountains. On the 5th, storm warnings were ordered for Lake Superior and the northern portions of Lakes Michigan and Huron, and on the 6th they were extended to cover the remaining portions of Lakes Michigan and Huron and the Lower Lakes. Brisk to high winds occurred over the territory indicated.

Another high-pressure area appeared over the Canadian Northwest on the morning of the 6th, whence it moved to western Ontario during the next 24 hours with greatly increased energy, and frost warnings were issued on that date for Michigan and Wisconsin. By the morning of the 8th, the high area was over the upper Lake region, and frosts were reported in Wisconsin and Michigan and over portions of Illinois and Iowa. This high-pressure area, the most important of the month, moved slowly southeastward to the Michigan Peninsula by the morning of the 10th, and frosts were reported generally throughout the Lake region, the middle Atlantic and New England States, warnings of which had been previously disseminated. The high area moved slowly southward to the Gulf States over which region it persisted in modified form until the 18th of the month. The southward movement of this high area caused cooler weather over the Gulf States, and from the 10th to the 13th all previous records of low temperatures for the first and second decades of June were exceeded at a number of stations in the Ohio Valley and over practically all the middle Atlantic, east Gulf, and south Atlantic States.

From the 3d to the 11th showers occurred almost daily over portions of the Gulf States.

Pressure became low over the north Pacific States on the morning of the 7th and it continued low from British Columbia to the southern Plateau until the 9th. On the 10th two low centers appeared, one over the Canadian Northwest and the other over Utah. During the next two days the southern center disappeared while the northern center moved eastward through southern Canada, and by the morning of the 14th was over the Canadian maritime Provinces, thence passing eastward during the following 24 hours to the Grand Banks. This storm caused scattered showers over the Rocky Mountain region.

On the morning of the 14th a low appeared over the Canadian Northwest and during the three days following moved across the northern tier of States to the Grand Banks, where it was central on the morning of the 17th, with pressure reading at Port au Basques, Newfoundland, 29.20 inches. Showers in connection with this storm were confined to northern States.

A high passed slowly east-southeastward from the Canadian Northwest on the 16th to a position off the middle Atlantic coast by the 19th.

By the evening of the 18th pressure had fallen over the northern Plateau and on the morning of the 20th a low center of slight intensity was over northern Illinois and a second center was over eastern Ontario. By the following morning the northern center had passed to the Maine coast, while the southern center was over Kansas. During the succeeding two days conditions remained unsettled over the central States and showers occurred over that region. By the morning of the 23d the northern low had moved to the Grand Banks, while the southern low had lost its identity.

On the morning of the 23d a low-pressure area was over the Canadian Northwest. Part of this disturbance moved slowly southward over the Plateau and disappeared, while the main center passed slowly eastward to the mouth of the St. Lawrence River by the morning of the 27th, and to the Grand Banks by the 29th, with pressure reading 29.20 inches at Sydney, Nova Scotia. This disturbance caused showers and thunderstorms from the Plains States eastward.

Following the passage of this low there was a recovery to higher pressure over the eastern half of the country from the 27th to the last of the month.

On the morning of the 24th vessel reports indicated the presence of a disturbance in the extreme western Caribbean Sea. During the following 48 hours the disturbance moved north-northwest to about latitude 25°, and longitude 89°. It thence moved about northwest until the evening of the 27th when it was off the mouth of the Rio Grande with pressure at Brownsville, Tex., 29.62 inches. By the morning of the 28th. it had passed inland over the Texas coast between Corpus Christi and

Brownsville, a maximum wind velocity of 52 miles from the southeast being reported on that morning at Corpus Christi. Advisory messages regarding the location of this storm were issued on the 26th to Gulf and Atlantic ports and on the morning of the 27th storm warnings were hoisted on the southern Texas coast.

During the 29th and 30th pressure became high over the central and northern Rocky Mountain regions, and scattered showers occurred, accompanying the movement of a low-pressure area from the Rocky Mountain region northeastward into Canada.

Average temperatures and departures from the normal.

Districts.	Number of stations.	Average temperatures for the current month.	Departures for the current month.	Accumulated departures since Jan. 1.	Average departures since Jan. 1.
New England	12	63.1	−0.5	+14.1	+2.4
Middle Atlantic	15	70.0	−0.0	+19.9	+3.3
South Atlantic	10	75.2	−0.8	+14.6	+2.4
Florida Peninsula[1]	9	78.2	−1.8	+ 9.4	+1.6
East Gulf	11	77.4	−0.6	+ 4.6	+0.8
West Gulf	11	78.2	−0.8	− 5.8	−1.0
Ohio Valley and Tennessee	14	74.1	+0.9	+ 8.2	+1.4
Lower Lakes	11	66.4	−0.6	+ 8.5	+1.4
Upper Lakes	13	69.0	+1.9	+ 1.3	+0.2
North Dakota[1]	9	65.9	+3.1	− 0.2	0.0
Upper Mississippi Valley	14	73.3	+2.4	+ 4.6	+0.8
Missouri Valley	12	73.6	+2.6	+ 5.4	+0.9
Northern slope	9	63.5	+1.4	− 7.6	−1.3
Middle slope	6	72.4	+0.5	− 3.0	−0.5
Southern slope[1]	8	75.2	−1.5	− 7.9	−1.3
Southern Plateau[1]	9	74.3	−2.8	−17.3	−2.9
Middle Plateau[1]	10	63.2	−1.0	− 7.0	−1.2
Northern Plateau[1]	11	62.5	−1.1	−12.5	−2.1
North Pacific	7	58.2	+0.6	− 4.6	−0.8
Middle Pacific	7	60.7	−1.9	− 5.0	−0.8
South Pacific	4	65.2	−0.9	+ 1.3	+0.2

[1] Regular Weather Bureau and selected cooperative stations.

Average precipitation and departures from the normal.

Districts.	Number of stations.	Average.		Departure.	
		Current month.	Percentage of normal.	Current month.	Accumulated since Jan. 1.
New England	11	1.11	36	−2.00	−2.30
Middle Atlantic	15	2.24	60	−1.50	−1.70
South Atlantic	11	3.98	82	−0.90	−1.60
Florida Peninsula[1]	9	4.77	68	−2.20	−0.90
East Gulf	11	3.58	78	−1.00	+0.70
West Gulf	10	2.23	60	−1.50	−2.50
Ohio Valley and Tennessee	14	2.33	55	−1.90	+2.40
Lower Lakes	10	1.82	50	−1.80	+3.40
Upper Lakes	13	2.27	67	−1.10	−0.80
North Dakota[1]	9	2.21	63	−1.30	−3.90
Upper Mississippi Valley	15	2.85	64	−1.60	−1.00
Missouri Valley	12	2.32	54	−2.00	−1.80
Northern slope	9	2.28	100	0.00	−0.10
Middle slope	6	1.95	62	−1.20	−3.30
Southern slope[1]	8	4.09	117	+0.60	−1.60
Southern Plateau[1]	9	0.90	300	+0.60	+0.20
Middle Plateau[1]	11	1.50	300	+1.00	−1.10
Northern Plateau[1]	11	2.58	190	+1.20	+0.10
North Pacific	7	3.67	177	+1.60	−4.80
Middle Pacific	7	0.33	100	0.00	−7.80
South Pacific	4	0.34	850	+0.30	−2.20

[1] Regular Weather Bureau and selected cooperative stations.

Average relative humidity and departure from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	70	−9	Missouri Valley	61	− 6
Middle Atlantic	68	−5	Northern slope	64	+ 7
South Atlantic	76	−2	Middle slope	60	0
Florida Peninsula	76	−4	Southern slope	68	+ 8
East Gulf	71	−4	Southern Plateau	40	+10
West Gulf	73	−3	Middle Plateau	47	+10
Ohio Valley and Tennessee	64	−6	Northern Plateau	60	+ 9
Lower Lakes	65	−6	North Pacific	79	+ 2.
Upper Lakes	67	−6	Middle Pacific	69	+ 7
North Dakota	64	−4	South Pacific	68	+ 2
Upper Mississippi Valley	62	−8			

Average cloudiness and departure from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	4.4	−0.8	Missouri Valley	3.7	−1.2
Middle Atlantic	4.4	−0.6	Northern slope	5.2	+0.4
South Atlantic	4.9	−0.1	Middle slope	5.2	+1.2
Florida Peninsula	5.5	+0.3	Southern slope	5.4	+1.6
East Gulf	4.4	−0.3	Southern Plateau	2.6	+0.6
West Gulf	4.5	+0.2	Middle Plateau	4.5	+1.2
Ohio Valley and Tennessee	3.7	−1.3	Northern Plateau	6.1	+1.5
Lower Lakes	3.4	−1.5	North Pacific	6.2	+0.1
Upper Lakes	3.8	−1.3	Middle Pacific	4.0	+0.7
North Dakota	3.6	−1.8	South Pacific	4.3	+1.0
Upper Mississippi Valley	3.9	−1.1			

Maximum wind velocities.

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
Atlanta, Ga	22	64	sw.	Mount Tamalpais, Cal	25	67	nw.
Bismarck, N. Dak	14	50	nw.	Do	26	53	nw.
Cleveland, Ohio	10	64	sw.	Do	27	52	nw.
Columbus, Ohio	1	60	nw.	Pittsburgh, Pa	20	52	nw.
Do	18	52	ne.	Point Reyes Light, Cal	3	53	nw.
Corpus Christi, Tex	28	50	se.	Do	4	54	nw.
Detroit, Mich	19	69	nw.	Do	10	74	nw.
El Paso, Tex	1	50	se.	Do	11	62	nw.
Helena, Mont	8	52	s.	Do	12	50	nw.
Do	17	51	sw.	Do	14	53	nw.
Lincoln, Nebr	1	56	nw.	Do	15	50	nw.
Louisville, Ky	17	56	nw.	Do	20	67	nw.
Memphis, Tenn	6	52	nw.	Do	24	50	nw.
Minneapolis, Minn	17	61	nw.	Do	25	53	nw.
Modena, Utah	26	54	sw.	Do	27	55	nw.
Mount Tamalpais, Cal	9	72	nw.	Do	30	62	nw.
Do	12	62	nw.	St. Paul, Minn	17	64	nw.
Do	13	69	nw.	Terre Haute, Ind	15	50	ne.
Do	14	74	nw.	Trenton, N. J	20	54	nw.
Do	20	60	n.	Williston, N. Dak	14	64	nw.
Do	21	60	n.				
Do	24	72	nw.				

RIVERS AND FLOODS FOR JUNE, 1913.

By ALFRED J. HENRY, Professor in Charge River and Flood Division.

The annual rise in the Columbia River and its tributaries was in progress during the month, a full statement of which appears in the report of the district editor.

The moderate flood that was in progress in the Illinois River at the end of May had receded by the middle of the month. In South Carolina, the Santee River was slightly above flood stage from the 13th to the 15th, and the Rio Grande at San Marcial, N. Mex., crested at 13 feet, 2 feet above flood stage, on the 13th. Elsewhere the rivers were at moderate stages during the month.

Losses in bridges, railroads, public highways, and costs of cleaning cellars during May, 1913, amounting to about $50,000, have been reported from Duluth, Minn., and Superior, Wis., resulting from heavy storms in the early morning of the 29th at those points.

Hydrographs for typical points on several principal rivers are shown on Chart I. The stations selected for charting are Keokuk, St. Louis, Memphis, Vicksburg, and New Orleans, on the Mississippi; Cincinnati and Cairo, on the Ohio; Nashville, on the Cumberland; Johnsonville, on the Tennessee; Kansas City, on the Missouri; Little Rock, on the Arkansas; and Shreveport, on the Red.

SPECIAL PAPERS ON GENERAL METEOROLOGY.

RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY.

C. FITZHUGH TALMAN, Junior Professor in Charge of Library.

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies.

Brooks, Charles F.
The snowfall of the United States. [London. 1913.] 81–86 p. plate. 8°. (From the Quarterly journal of the Royal meteorological society, Apr. 1913. v. 39, no. 166.)

Cienfuegos. Colegio "Ntra. Sra. de Montserrat." Observatorio.
Anales, No. 2. Observaciones meteorológicas de 1912. Habana. 1913. v, [96] p. f°.

[Finska vetenskaps-societeten.] Finländische hydrographisch-biologische Untersuchungen.
No. 8. Beobachtungen von Temperatur und Salzgehalt an festen Stationen, 1900–1910. Helsingfors. 1912. 78 p. f°.
No. 9. Beobachtungen von Oberflächenstrom, Tiefenstrom und Wind an Feuerschiffen, 1900–1910. Helsingfors. 1912. 100 p. f°.
No. 10. Jahrbuch, 1911. Helsingfors. 1912. 132 p. 4 pl. f°.

Jahrbuch der Luftfahrt.
2. Jahrgang 1912. Herausgegeben von Ansbert Vorreiter. München. 1912. xv, 686 p. illus. 8°.

Jensen, Chr[istian].
Die Polarisationsgrösse des blauen Himmelslichtes nach Sonnenuntergang. [Halle.] n. d. 11 p. 12°. (Separat-Abdruck aus Jahrbuch für Photographie u. Reproduktionstechnik für das Jahr 1912.)
Über die grosse atmosphärisch-optische Störung von 1912. [Berlin. 1912.] 12 p. 8°. (Separatabdruck aus den Mitteilungen der Vereinigung von Freunden der Astronomie und kosmischen Physik.)

Lindholm, F.
Extinction des radiations solaires dans l'atmosphère terrestre. Étude basée sur les observations spectro-bolometriques faites à l'Institut de physique d'Upsala pendant l'année 1912. Upsala. 1913. 2 p. l., 93 p. 3 pl. 4°. (Nova acta Regiæ societatis scientiarum Upsaliensis. Ser. 4, v. 3, no. 6.)

Manila. Observatorio central.
Código meteorológico internacional, 1872–1910. Versión española de la 2da edición alemana. Manila. 1913. 92 p. 8°.

Milan. Reale osservatorio astronomico di Brera.
Osservazioni meteorologiche e geofisiche, 1912. Ser. 3, v. 4. Milan. 1913. xiii, 51 p. 4°.

Mysore. Meteorological department.
Report on rainfall registration in Mysore, 1911. Bangalore. 1913. xvi, 49 p. 3 pl. 2 maps. 4°.

Norway. Norske meteorologiske institut.
Aarsberetning for 1911/12. [Kristiania.] 1912. 13 p. 12°.
Jahrbuch, 1912. Kristiania. 1913. xii, 138 p. f°.
Nedbøriagttagelser i Norge, Aargang 18, 1912. Kristiania. 1913. [xiii], 78, 65 p. f°.
Oversigt over luftens temperatur og nedbøren i Norge, 1911. Kristiania. [1912]. 21 p. 8°.

Osaka (Japan). Meteorological observatory.
Annual report, 1912. Pt. 1. [Japanese.] Osaka. 1913. 8°.

Philippine Islands. Weather bureau.
Annual report of the Director, 1909. Pt. 3. Meteorological observations at secondary stations. Manila, 1913. 278 p. 4°.

Ramos da Costa, [A.]
Ramos da Costa's díceraunograph. Lisboa. 1911. 7 p. 8°. [Description, in English, of a Portuguese thunderstorm-recorder employing double coherers and decoherers.]

Richarz, F.
Ueber Erweiterungen und Bestätigungen meiner Erklärung des Lichtmaximums beim Brockengespenst und um den Korbschatten eines Ballons. [Together with] K. Stuchtey: Aufnahmen von hellen Ringen und Säulen um den Ballonschatten und deren künstliche Nachbildung. 9 p. 8°. (Sonderabdruck: Sitzber. Gesell. z. Beförd. Gesam. Naturw. Marburg. No. 5. 10. Juli 1912.)

Tables annuelles de constantes et données numériques de chimie, de physique et de technologie. v. 2, année 1911. Paris. 1913. xl, 759 p. 4°.

RECENT PAPERS BEARING ON METEOROLOGY.

C. FITZHUGH TALMAN, Junior Professor in Charge of Library.

The subjoined titles have been selected from the contents of the periodicals and serials recently received in the Library of the Weather Bureau. The titles selected are of papers and other communications bearing on meteorology and cognate branches of science. This is not a complete index of the meteorological contents of all the journals from which it has been compiled. It shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau.

American geographical society. Bulletin. New York. v. 45. July, 1913.
Brown, Robert M. The Ohio River floods of 1913. p. 500–509.

American philosophical society. Journal. Philadelphia. v. 52. April, 1913.
Livingston, Burton Edward. Climatic areas of the United States as related to plant growth. p. 257–275.

Astrophysical journal. Chicago. v. 37. June, 1913.
Ångström, Anders. Studies of the nocturnal radiation to space. p. 305–321.
Fowle, F[rederick] E[ugene]. The determination of aqueous vapor above Mount Wilson. p. 359–372.

British association for the advancement of science. Report. 82d meeting, Dundee, 1912. London. 1913.
White, Margaret. On the velocity and direction of the wind above ground level. p. 420–422.
White, Margaret. On the temperature of the upper atmosphere. p. 422–424.
Martin, Edward A. Dew-ponds and mist-ponds. p. 530–531.
Myres, J. L. Note on some effects of climatic pulsation in a highland region. p. 534–535.

International institute of agriculture. Bureau of agricultural intelligence and of plant diseases. Monthly bulletin. Rome. 4th year. June, 1913.
Weather forecasting and sun spots. p. 876–877. [Abstract.]

London, Edinburgh and Dublin philosophical magazine. London. 6th ser. v. 26. July, 1913.
Patterson, J. Self-recording electrometer. p. 200–209.

Nature. London. v. 91. 1913.
Backhouse, T. W. Anthelia. p. 399. (June 19.)
Chree, C[harles]. The Potsdam meteorological and magnetic observatories. p. 401–402. (June 19.) [Abstract.]
T., T. E. The oxygen content of the atmosphere. p. 400–401. (June 19.) [Abstract of memoir by Benedict.]
Remarkable drought in the Philippines. p. 409. (June 19.)
Hughes, A. Ll. The ionisation of gases in the Schumann region. p. 450. (July 3.)
Jex-Blake, A. J. Death by electric currents and by lightning. p. 466–469. (July 3.) [Important account of the physiological and pathological effects of lightning.]

Science. New York. v. 38. July 18, 1913.
Zon, Raphael. The relation of forests in the Atlantic plain to the humidity of the central states and prairie region. p. 63–75.

Seismological society of America. Bulletin. Stanford university. v. 3. June, 1913.
Sayles, R[obert] W[ilcox]. Earthquakes and rainfall. p. 51–56.

Symons's meteorological magazine. London. v. 48. June, 1913.
Mossmann, R. C. Southern hemisphere seasonal correlations. p. 82–85.

U. S. Office of experiment stations. Experiment station record. Washington. v. 28. June, 1913.
[**Agricultural** meteorology.] p. 701–707.

Washington academy of sciences. Journal. Washington. v. 3. 1913.
Abbot, C. G., Fowle, F. E., & Aldrich, L. B. The variation of the sun. p. 309–315. (June 4.)
Humphreys, W[illiam] J[ackson]. Volcanic dust as a factor in the production of climatic changes. p. 365–371.

Académie des sciences. Comptes rendus. Paris. Tome 156. 1913.
Störmer, Carl. Sur une expédition pour l'observation des aurores boréales à Bossekop, au printemps de 1913. p. 1871–1872. (16 juin.)
Berget, Alphonse. Formule barométrique simplifiée pour la mesure des altitudes. p. 2031–2033. (30 juin.) [This is merely a revival of the Babinet formula. See Comptes rendus, 7 juillet, 1913. p. 84.]

Académie des sciences. Comptes rendus. Paris. Tome 157. 7 juillet 1913.

Gorczyński, Ladislas. Sur l'affaiblissement du rayon solaire en 1912, d'après les mesures pyrhéliométriques effectuées en Pologne. p. 84–86.

Aérophile. Paris. 21 année. 1 juillet 1913.

Durand-Gréville, E. L'annonce télégraphique des grains et la vraie relation de l'orage et du grain. p. 296–300.

Astronomie. Paris. 27 année. Juillet 1913.

La plus haute ascension d'un ballon sonde. p. 328–329.

Flammarion, Camille. La hauteur de l'atmosphère. p. 330.

Nature. Paris. 41 année. 28 juin 1913.

Berget, Alphonse. Le temps qu'il fera d'après le temps qu'il fait aujourd'hui. p. 53–54.

Claude, Daniel. Animaux et plantes météorologiques. p. 55.

Radium. Paris. Tome 10. Avril 1913.

Ray, J. J. Sur l'ionisation de l'air en vase clos. p. 137–141.

Société météorologique de France. Annuaire. Paris. 61 année. 1913.

Rouch, J. Observations d'électricité atmosphérique dans l'Alantique. p. 149–161. (Mai.)

Raymond, G. Quelques observations nouvelles sur les bruits téléphoniques et les courants telluriques. Ce que l'on peut en tirer particulièrement au point de vue de la prévision des orages. p. 162–168. (Mai.)

Besson, Louis. Influence locale de l'agglomération parisienne sur la nébulosité. p. 181–185. (Juin.)

Durand-Gréville, E. La loi des crochets de grain. (Second mémoire.) p. 187–191. (Juin.)

Goutereau, Ch. Commission mixte de météorologie et d'aéronautique; compte rendu de la séance du 30 mai 1913. p. 194–197. (Juin.)

Brazier, C. E. Le barographe à mercure Agolini. p. 199–201. (Juin.)

Boutaric, A. Sur la relation entre l'absorption atmosphérique et la polarisation de la lumière diffusée par le ciel. p. 201–203. (Juin.)

Gèze, J. B. L'héliographe du docteur Maurer. p. 203–205. (Juin.)

Annalen der Hydrographie und maritimen Meteorologie. Berlin. 41. Jahrgang. Heft 7. 1913.

Schmehl. Die Unterstützung der Navigation durch Temperaturmessungen in der Nähe von treibenden Eisbergen. p. 374–375.

Das Entstehen einer Wasserhose. p. 376.

Hamburg. Deutsche Seewarte. Aus dem Archiv. Hamburg. 35. Jahrgang. Nr. 2. 1912.

Friedemann, Johannes. Bewölkung und Sonnenschein des Mittelmeergebietes. p. 3–96.

Meteorologische Zeitschrift. Braunschweig. Band 30. Juni 1913.

Abbot, C[harles] G[reeley], Fowle, F. E., & Aldrich, L. B. Die Solarkonstante und ihre Schwankungen. p. 257–261.

Meteorologische Zeitschrift—Continued.

Liznar, J[oseph]. Über die Abhängigkeit der Tagesamplitude der Lufttemperatur in Wien vom Sonnenfleckenstande. p. 261–268.

Lenard, P. Zur Analyse der ultravioletten Sonnenstrahlung mit Bezug auf deren meteorologische Wirkungen. p. 269–278.

Ficker, H[einrich] v. Temperaturdifferenz zwischen freier Atmosphäre und Berggipfeln. p. 278–289.

Defant, A[lbert]. Die Schwankungen der Solarkonstante. p. 289–295.

Arndt, Arvid. Über die Bora in Noworossisk. p. 295–302.

Daunderer, A. Hermann Ebert. p. 302–304. [Obituary.]

Hann, J[ulius] v. Die Berge kälter als die Atmosphäre, ein (wenigstens scheinbares) meteorologisches Paradoxon. p. 304–306.

D., A. L. V. King, Über die Zerstreuung und Absorption des Lichtes in gasförmigen Medien mit Anwendung auf die Intensität der Himmelstrahlung. p. 306–308.

Vallot, J[oseph]. Die Absorption der chemischen Strahlung und der Wärmestrahlung der Sonne zwischen dem Mont Blanc und Chamonix. p. 308–309.

Knoche, Walter. Keine Trübung der Atmosphäre in Santiago. p. 310–311.

Pollak, Leo Wenzel. Eine Statistik der Brandspuren des Sonnenscheinautographen. p. 312–313.

Hann, J[ulius] v. J. R. Sutton. Sonnenschein, Bewölkung, Niederschläge und Verdunstung in Kimberley. p. 314–315.

Naturwissenschaften. Berlin. 1. Jahrgang. 13. Juni 1913.

Ludewig, P. Luftfahrerwetterdienst. p. 565–568.

Physikalische Zeitschrift. Leipzig. 14. Jahrgang. 15. Juli 1913.

Hess, V. F. Über den Ursprung der durchdringenden Strahlung. p. 610–617.

Wetter. Berlin. 30. Jahrgang. Juni 1913.

Assmann, Richard. Nachruf für Professor Richard Börnstein. p. 121–123.

Thraen, A. Der Winterregen in der Gebirgsumwallung der oberrheinischen Tiefebene und ihre Beziehungen zu dem Sommerregen der Nachbargebiete. p. 124–127.

Kähler, K[arl]. Der Einfluss des Wetters auf die atmosphärische Elektrizität. p. 128–133.

Scheibener, Edmund. Das Gewitter und seine Begleiterscheinungen im Aberglauben des deutschen Volkes. p. 136–142.

Sonn, S. Die Wetterkunde in der Volksschule. p. 142–144.

Zeitschrift für Balneologie. Berlin. 6. Jahrgang. 1. Juli 1913.

Heim, Gustav. Nervenerregende Winde. p. 204–209.

Zeitschrift für Instrumentenkunde. Berlin. 33. Jahrgang. Juni 1913.

Wicksell-Gyllenberg, S. W. Optische Kalibrierungsmethoden für Barometer- und Thermometerröhren. p. 188–192.

Becker, E. Ein neuer Quecksilberbarograph. p. 223–226.

CONDENSED CLIMATOLOGICAL SUMMARY.

In the following table are given for the various sections of the climatological service of the Weather Bureau, the average temperature and rainfall, the stations reporting the highest and lowest temperatures with dates of occurrence, the stations reporting the greatest and least monthly precipitation, and other data, as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course the number of such records is smaller than the total number of stations.

CONDENSED CLIMATOLOGICAL SUMMARY OF TEMPERATURE AND PRECIPITATION, BY SECTIONS, JUNE, 1913.

Section.	Temperature (°F.).								Precipitation (inches and hundredths).					
	Section average.	Departure from the normal.	Monthly extremes.						Section average.	Departure from the normal.	Greatest monthly.		Least monthly.	
			Station.	Highest.	Date.	Station.	Lowest.	Date			Station.	Amount.	Station.	Amount.
Alabama	77.5	−0.4	Bermuda	107	18	Hamilton	40	12	3.54	−0.72	Talladega	9.52	Ozark	0.90
Arizona	73.1	−2.8	Maricopa	114	20	Flagstaff	20	11†	0.10	−0.14	Courtland	1.25	27 stations	0.00
Arkansas	77.0	+1.0	Jonesboro	103	28†	Dutton	39	12	1.68	−2.54	Camden	6.34	Georgetown	0.14
California	65.8	−3.2	Greenland Ranch	119	22	Yosemite	22	10	0.58	+0.27	Tamarack	7.44	34 stations	0.00
Colorado	59.6	−0.3	2 stations	104	27†	Fraser	18	2†	1.99	+0.44	Stonewall	5.88	Cortez	T.
Florida	78.2	−1.4	Marianna	103	16†	2 stations	50	12†	5.11	−2.20	Fenholloway	10.90	Clermont	1.80
Georgia	76.4	−1.4	Talbottan	103	28	Diamond	40	12	4.83	+0.08	Valdosta	11.90	Adairsville	0.80
Hawaii [for May]	71.3	.....	Mahukona	90	6	Humuula	30	7	6.60	.....	Luakaha	17.13	Kealia	1.74
Idaho	61.2	−0.1	Weiser	99	18	Pierson	24	15	2.87	+1.58	Landore	7.11	Gooding	0.91
Illinois	73.8	+2.5	3 stations	106	18†	Lanark	33	8	2.47	−1.26	Galva	6.18	Equality	0.62
Indiana	73.2	+2.3	Rome	105	19	Howe	32	9	2.10	−1.93	Cambridge City	7.17	Auburn	0.53
Iowa	71.4	+2.6	Clinton	102	29	2 stations	33	9†	3.32	−1.20	Lacona	8.95	Alta (near)	0.74
Kansas	74.1	+1.3	Coolidge	106	26	Blakeman	37	8	2.44	−1.68	Lawrence	7.58	Fall River	0.25
Kentucky	75.0	+1.9	Earlington	107	29	Farmers	38	11	2.82	−1.42	Beattyville	5.78	Paducah	0.40
Louisiana	78.4	−1.5	2 stations	103	4†	Grand Cane	43	14	3.72	−1.56	Napoleonville	11.15	Clinton	0.61
Maryland & Delaware	71.2	+0.6	.....do	100	16	Deer Park	27	10	2.27	−1.75	Denton	5.06	Towson	0.78
Michigan	65.9	+2.2	Adrian	103	16	Chatham	23	8	2.21	−0.78	Ewen	5.25	Ann Arbor	0.24
Minnesota	67.4	+3.2	Warren	103	28	Roseau	26	7	3.08	−0.76	Rochester	6.75	Warren	0.78
Mississippi	78.0	−0.7	Columbus	104	18	2 stations	46	12	2.12	−2.39	Collins	5.76	Yazoo City	T.
Missouri	75.4	+2.6	Steffenville	107	18	Dean	33	10	2.57	−2.22	Bethany	6.39	Liberty	0.37
Montana	61.6	+1.7	Poplar	96	23	Bowen	27	11	3.39	+0.72	Butte	8.86	Sidney	1.47
Nebraska	71.1	+2.3	Ewing	107	15	3 stations	37	8†	2.73	−1.00	Hooper	8.20	Kimball	0.62
Nevada	61.8	−1.2	Jean	106	30	Tecoma	28	13	1.99	+1.58	Elko	3.98	Jean	T.
New England	63.5	−1.0	Bridgeport, Conn	95	16	2 stations	27	9†	1.28	−1.82	Waterbury, Conn	3.31	2 stations	0.10
New Jersey	69.1	−0.1	Vineland	98	16	.....do	31	9†	1.80	−2.04	Pleasantville	3.76	Trenton	0.68
New Mexico	66.1	−2.0	Willard	105	30	.....do	26	12†	3.09	+1.31	Fort Union	11.64	Rodeo	0.00
New York	64.1	−0.5	2 stations	99	16	Beerston	22	9	2.00	−1.87	Addison	5.23	Indian Lake	0.48
North Carolina	72.9	−0.6	4 stations	99	16†	Altapass	34	11	4.93	+0.20	Rock House	10.43	Blantyre	1.26
North Dakota	65.8	+2.7	2 stations	101	24	Ashley	27	7	2.35	−1.09	Power	6.95	Minto	0.81
Ohio	69.8	+0.6	New Waterford	105	30	Garrettsville	29	10	1.87	−2.06	Marietta	4.94	Lima	0.36
Oklahoma	76.0	+0.2	2 stations	106	1	Pawhuska	42	13	2.62	−1.44	Lawton	6.77	Muskogee	T.
Oregon	61.0	+0.3	Umatilla	102	1	Combs Flat	21	14	3.18	+1.75	Newport	6.62	Huntington	0.21
Pennsylvania	68.2	+0.2	Gettysburg	99	16	Somerset	20	10	2.26	−1.75	Clarion	7.61	Lebanon	0.66
Porto Rico	76.7	−1.5	Mayaguez	93	7	2 stations	55	3†	5.52	−1.33	Rio Grande	16.29	Isidora	0.27
South Carolina	76.2	−1.4	Saluda	105	23	Winthrop College	40	11	5.53	+0.47	Georgetown	12.05	Beaufort	1.96
South Dakota	69.6	+3.9	2 stations	106	27†	4 stations	33	7	2.50	−1.11	Sorum	6.05	Hopewell	0.22
Tennessee	75.8	+1.5	3 stations	104	27†	Mountain City	36	11	2.53	−2.04	Carthage	4.78	Dover	0.36
Texas	78.0	−2.1	Fort Stockton	104	4	Canadian	41	9	3.61	+0.18	Montell	22.93	Claude	T.
Utah	64.0	−1.0	Midvale	110	22	3 stations	23	11†	1.57	+1.22	Woodruff	6.12	3 stations	0.00
Virginia	71.1	−0.3	4 stations	98	21	Mountain Lake	28	10	3.91	−0.68	Clarksville	8.08	Lincoln	0.95
Washington	61.6	+0.7	Hanford	104	2	2 stations	30	15	2.82	+1.42	Quiniault	8.43	Wahluke	0.34
West Virginia	69.5	+0.6	2 stations	99	16†	Bayard	29	10	3.44	−1.34	Princeton	6.55	Wellsburg	0.86
Wisconsin	67.0	+2.3	Sheboygan	102	27	Long Lake	23	8†	3.10	−0.73	Stevens Point	8.31	Grantsburg	1.00
Wyoming	58.3	+1.4	Wheatland	104	16	2 stations	17	3†	2.19	+0.71	Border	4.97	Rock River	0.22

† Other dates also.

TABLE I.—*Climatological data for United States Weather Bureau stations, June, 1913.*

Districts and stations.	Elevation of instruments.			Pressure in inches.			Temperature of the air, in degrees Fahrenheit.										Mean wet thermometer.	Mean temperature of the dew point.	Mean relative humidity, per cent.	Precipitation, inches.			Wind.					Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall.	Snow on ground at end of month.
	Barometer above sea level, feet.	Thermometer above ground.	Anemometer above ground.	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.					Total.	Departure from normal.	Days with 0.01, or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.						
New England.							**63.1**	**— 0.5**											**70**	**1.11**	**— 2.0**								**4.4**		
Eastport	76	67	85	29.86	29.94	+ .01	56.4	+ 2.0	80	11	65	43	1	47	31	51	47	76	0.71	— 2.5	12	7,094	s.	36	nw.	16	10	15	5	4.7	....	....
Greenville	1,070	6	....	28.85	29.95	.....	57.4	.....	82	27	70	32	10	45	39	.....	.....	.....	1.82	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....
Portland, Me.	103	82	117	29.87	29.99	+ .04	62.2	— 0.4	91	27	71	46	1	53	33	54	48	64	0.59	— 2.8	7	7,181	s.	36	nw.	2	14	10	6	4.6	....	....
Concord	288	70	79	29.68	29.99	+ .03	63.1	— 1.3	91	27	77	37	9	49	41	.....	.....	.....	0.10	— 3.2	3	4,095	nw.	23	sw.	6	14	10	6	4.4	....	....
Burlington	404	11	48	29.57	30.00	+ .04	62.2	— 1.6	87	27	74	35	10	51	35	.....	.....	.....	2.22	— 1.0	10	6,785	s.	38	s.	6	7	17	6	5.1	....	....
Northfield, Vt.	876	12	60	29.06	29.99	+ .03	59.0	— 3.7	87	27	73	30	10	45	41	55	49	66	1.29	— 1.9	10	5,568	s.	35	n.	16	8	16	6	5.2	....	....
Boston	125	115	188	29.86	29.99	+ .03	67.5	+ 1.7	91	16	77	47	10	58	30	59	54	66	0.64	— 2.4	5	7,279	sw.	40	nw.	7	17	9	4	3.4	....	....
Nantucket	12	14	90	29.99	30.00	+ .02	60.7	— 0.6	78	14	68	47	6	53	24	57	55	84	1.59	— 0.8	6	10,377	sw.	36	sw.	7	17	8	5	4.4	....	....
Block Island	26	11	46	29.98	30.01	+ .04	62.4	+ 0.8	81	17	69	48	9	56	26	58	56	84	0.73	— 2.1	6	9,740	sw.	36	w.	7	17	6	7	4.5	....	....
Narragansett Pier	.....	9	.....	.....	.....	.....	62.8	— 1.4	86	14	71	43	10	54	33	.....	.....	.....	1.27	.....	6	.....	sw.	.....	.....	.....	22	3	5	.....	....	....
Providence	160	141	165	29.83	30.00	+ .03	65.8	— 2.5	89	16	76	46	10	56	30	59	54	67	1.19	— 2.0	5	6,838	s.	32	nw.	2	16	11	3	3.6	....	....
Hartford	159	122	140	29.83	30.00	+ .03	67.6	+ 0.5	90	16	79	42	10	56	29	59	53	64	2.07	— 1.0	7	5,517	s.	37	sw.	7	14	9	7	4.6	....	....
New Haven	106	117	155	29.90	30.01	+ .04	67.6	+ 0.7	92	16	78	44	10	57	32	59	53	63	1.09	— 2.1	5	6,102	s.	32	w.	7	15	10	5	3.5	....	....
Middle Atlantic States.							**70.0**	**0.0**											**68**	**2.24**	**— 1.5**								**4.4**		
Albany	97	102	115	29.89	29.99	+ .02	67.8	— 0.1	93	30	80	40	9	56	37	59	52	59	1.71	— 2.0	8	5,581	s.	26	s.	6	20	8	2	2.7	....	....
Binghamton	871	78	88	29.12	30.04	+ .07	63.6	— 2.6	90	30	77	31	9	50	40	.....	.....	.....	0.81	— 2.8	9	3,398	sw.	30	nw.	7	11	11	8	5.0	....	....
New York	314	414	454	29.68	30.01	+ .03	69.2	+ 0.7	91	16	78	47	9	60	30	60	54	64	1.43	— 1.8	4	10,209	sw.	49	nw.	20	13	11	6	4.5	....	....
Harrisburg	374	94	104	29.64	30.03	+ .04	71.4	+ 1.1	96	16	82	44	9	61	31	61	55	58	1.07	— 2.5	12	3,928	nw.	24	nw.	27	13	8	9	5.0	....	....
Philadelphia	117	123	184	29.91	30.03	+ .05	72.5	+ 1.3	96	16	82	47	9	63	29	63	57	62	2.15	— 1.2	8	6,525	s.	42	nw.	20	10	12	8	4.9	....	....
Reading	325	81	98	29.68	30.02	.....	71.2	.....	95	16	82	43	9	60	34	62	57	64	1.21	.....	7	4,283	n.	40	n.	20	15	7	8	4.6	....	....
Scranton	805	111	119	29.18	30.03	+ .05	67.5	+ 0.3	91	16	80	39	9	55	37	62	58	71	1.34	— 2.2	8	4,867	nw.	25	w.	20	18	9	3	2.7	....	....
Atlantic City	52	37	48	29.98	30.03	+ .05	67.0	+ 0.2	92	17	73	46	10	61	32	62	59	77	2.41	— 0.6	8	5,306	sw.	22	n.	20	12	9	9	4.9	....	....
Cape May	17	13	49	30.03	30.05	+ .07	68.0	+ 0.3	92	17	75	46	9	61	31	63	61	84	2.36	— 0.7	10	5,051	s.	33	nw.	21	11	16	3	4.2	....	....
Trenton	190	159	183	29.81	30.01	.....	70.6	.....	94	16	82	44	9	60	34	62	57	68	0.68	.....	5	7,158	n.	54	nw.	20	14	10	6	4.5	....	....
Baltimore	123	100	113	29.91	30.03	+ .04	73.7	+ 0.7	97	16	83	46	9	65	26	64	58	61	1.47	— 2.4	6	4,839	s.	35	nw.	21	12	12	6	4.3	....	....
Washington	112	62	85	29.91	30.03	+ .03	72.8	+ 0.1	96	16	83	45	11	62	30	64	59	66	1.81	— 2.4	10	4,102	n.	40	nw.	16	14	8	8	4.4	....	....
Lynchburg	681	83	88	29.32	30.05	+ .04	73.3	— 0.2	97	21	84	43	11	63	34	65	61	72	2.88	— 1.0	12	1,996	n.	15	ne.	28	6	18	6	5.6	....	....
Mount Weather	1,725	10	75	28.25	30.02	+ .02	67.7	+ 0.1	89	16	75	36	9	60	23	60	55	68	1.90	— 2.9	10	9,198	nw.	43	nw.	17	11	14	5	4.6	....	....
Norfolk	91	170	205	29.94	30.04	+ .04	73.2	— 1.2	95	16	81	53	9	66	27	66	63	74	5.70	+ 1.4	12	8,058	ne.	37	n.	7	14	7	9	4.7	....	....
Richmond	144	11	52	29.89	30.04	+ .03	73.8	— 1.3	97	21	84	46	10	64	28	65	61	69	3.78	+ 0.3	9	4,382	ne.	29	nw.	28	12	11	7	4.4	....	....
Wytheville	2,293	40	47	27.75	30.06	+ .05	68.6	— 0.1	89	28	80	36	11	57	36	62	59	77	2.84	— 1.3	12	2,826	w.	17	nw.	17	14	13	3	3.5	....	....
South Atlantic States.							**75.2**	**— 0.8**											**76**	**3.98**	**— 0.9**								**4.9**		
Asheville	2,255	70	84	27.78	30.07	+ .06	69.4	+ 0.7	89	28	81	46	11	58	33	62	58	74	2.90	— 1.4	13	4,407	nw.	33	e.	8	11	14	5	4.6	....	....
Charlotte	773	68	76	29.23	30.05	+ .04	75.0	— 0.5	95	28	85	47	11	65	29	66	63	72	4.21	— 0.2	16	4,075	ne.	26	sw.	25	8	15	7	5.2	....	....
Hatteras	11	12	50	29.98	29.99	— .02	73.6	— 0.8	89	15	79	56	10	68	22	70	68	85	1.62	— 2.7	7	10,143	sw.	38	n.	9	14	6	10	4.8	....	....
Manteo	12	12	46	.....	.....	.....	73.4	.....	95	21	81	51	1	66	.....	.....	.....	.....	3.52	— 0.8	11	.....	ne.	.....	.....	.....	15	7	8	.....	....	....
Raleigh	376	103	110	29.64	30.03	+ .02	74.8	— 0.3	95	17	84	51	12	65	27	66	62	72	5.13	+ 0.4	12	5,306	sw.	33	w.	23	12	11	7	5.1	....	....
Wilmington	78	81	91	29.96	30.04	+ .03	74.4	— 1.1	96	17	83	51	10	66	29	68	67	84	6.06	+ 0.4	13	5,541	sw.	24	ne.	10	6	17	7	5.3	....	....
Charleston	48	11	92	30.00	30.05	+ .04	76.2	— 1.3	95	17	83	49	12	69	27	70	67	77	2.88	— 2.5	10	7,602	s.	39	n.	11	13	11	6	4.5	....	....
Columbia, S. C.	351	41	57	29.68	30.05	+ .04	76.4	— 1.8	98	17	87	47	12	66	32	67	63	70	3.54	— 0.6	13	4,595	sw.	32	sw.	23	11	12	7	4.8	....	....
Augusta	180	89	97	29.86	30.05	+ .04	76.8	— 1.3	98	17	87	48	12	66	35	68	65	74	5.10	+ 0.6	11	4,219	se.	30	ne.	4	11	10	9	4.9	....	....
Savannah	65	150	194	29.98	30.05	+ .04	77.0	— 1.2	98	17	86	49	12	68	30	69	67	79	4.28	— 1.8	12	7,391	s.	42	sw.	22	10	12	8	4.9	....	....
Jacksonville	43	96	129	30.00	30.05	+ .04	78.3	— 0.7	97	17	87	54	12	70	28	70	68	77	4.55	— 1.0	10	5,864	se.	36	sw.	2	11	15	4	4.6	....	....
Florida Peninsula.							**78.9**	**— 1.3**											**76**	**4.65**	**— 2.2**								**5.5**		
Key West	22	10	64	30.00	30.02	+ .03	80.2	— 2.0	88	12	85	70	15	75	14	74	72	77	3.13	— 1.1	11	6,164	se.	32	sw.	26	9	12	9	5.8	....	....
Miami	25	37	72	30.02	30.05	.....	78.8	— 1.6	87	30	85	67	16	73	17	73	70	75	4.07	— 3.8	11	5,480	se.	22	e.	24	2	10	18	7.3	....	....
Sand Key	23	39	72	29.97	30.00	+ .01	79.2	.....	87	13	82	68	6	76	16	74	72	76	3.43	.....	6	7,945	se.	44	se.	25	14	8	8	4.9	....	....
Tampa	35	79	96	30.00	30.04	+ .03	78.9	+ 0.2	96	17	88	59	13	70	26	71	69	76	6.75	— 1.6	9	4,457	e.	27	e.	22	9	17	4	4.7	....	....
Titusville	44	6	....	30.00	30.05	.....	77.8	— 1.9	98	1	87	57	13	68	32	.....	.....	.....	3.07	.....	11	.....	se.	.....	.....	.....	12	14	4	4.6	....	....
East Gulf States.							**77.4**	**— 0.6**											**71**	**3.58**	**— 1.0**								**4.4**		
Atlanta	1,174	190	216	28.85	30.07	+ .06	75.8	+ 0.2	96	17	86	47	12	66	30	65	60	66	3.10	— 0.8	14	5,687	w.	64	sw.	22	16	7	7	4.2	....	....
Macon	370	78	87	29.65	30.04	+ .03	76.8	+ 0.3	97	17	88	46	12	66	37	68	65	73	3.54	0.0	11	3,812	s.	32	n.	18	15	9	6	4.1	....	....
Thomasville	273	8	57	29.75	30.04	+ .04	76.9	— 2.6	98	18	89	49	12	65	34	69	66	79	7.90	+ 3.2	16	3,196	sw.	31	e.	28	10	11	9	5.0	....	....
Pensacola	56	140	182	29.98	30.04	+ .05	77.4	— 2.6	96	18	84	55	11	71	24	70	67	75	3.77	— 1.1	9	8,385	se.	40	ne.	28	15	6	9	4.3	....	....
Anniston	741	9	57	29.30	30.08	+ .08	75.6	+ 0.6	98	18	82	47	12	63	39	.....	.....	.....	3.53	— 0.4	17	2,967	e.	29	n.	2	15	13	2	3.8	....	....
Birmingham	700	11	48	29.31	30.06	+ .07	77.4	— 0.8	98	28	88	51	11	66	32	67	62	65	2.75	— 1.1	9	3,612	s.	27	se.	30	17	10	3	3.5	....	....
Mobile	57	98	106	29.97	30.03	+ .04	78.6	— 0.5	100	18	87	56	11	70	28	70	67	74	3.88	— 2.1	12	4,771	n.	25	se.	30	13	13	4	4.2	....	....
Montgomery	223	100	112	29.80	30.05	+ .05	78.8	— 0.3	98	18	90	52	12	68	32	68	63	63	1.71	— 2.5	10	4,221	sw.	26	e.	2	16	10	4	4.0	....	....
Meridian	375	84	93	29.64	30.03	+ .05	76.9	— 0.4	96	18	88	50	11	66	32	68	64	69	3.20	— 1.4	8	3,036	sw.	21	e.	8	15	4	11	4.8	....	....
Vicksburg	247	62	74	29.77	30.05	+ .08	78.4	— 0.1	97	19	88	54	11	69	27	70	66	72	0.46	— 4.0	7	3,997	e.	27	s.	20	12	13	5	4.6	....	....
New Orleans	51	90	121	29.96	30.02	+ .04	78.8	— 0.8	97	18	86	59	11	71	22	72	69	75	5.58	— 0.6	14	5,298	ne.	33	se.	6	7	14	9	5.7	....	....
West Gulf States.							**78.2**	**— 0.8**											**73**	**2.23**	**— 1.5**								**4.5**		
Shreveport	249	77	93	29.76	30.02	+ .06	79.0	— 0.6	98	20	89	59	11	69	28	69	65	69	3.23	— 0.4	5	4,456	s	30	se.	8	16	8	6	4.1	....	....
Bentonville	1,303	11	44	28.95	30.01	+ .07	74.3	— 0.2	95	27	87	45	11	62	34	.....	.....	.....	0.99	— 3.6	6	3,730	s.	22	sw.	6	18	9	3	3.5	....	....
Fort Smith	457	79	94	29.52	29.99	+ .05	78.7	+ 1.9	98	2	90	54	12	67	31	67	62	62	0.64	— 3.4	4	4,855	e.	25	se.	30	10	11	9	4.7	....	....
Little Rock	357	139	147	29.65	30.02	+ .06	78.2	+ 1.0	96	30	88	56	11	68	27	71	68	74	2.05	— 2.0	5	5,143	sw.	31	nw.	22	17	10	3	3.5	....	....
Brownsville	57	4	.....	.....	.....	.....	78.2	.....	91	1	85	65	10	71	22	.....	.....	.....	4.96	.....	16	.....	se.	.....	.....	.....	.....	.....	.....	.....	.....	....	....
Corpus Christi	20	69	77	29.94	29.96	+ .05	78.2	— 2.4	87	1	82	71	12	74	15	74	72	85	3.95	+ 1.2	15	10,439	se.	50	se.	28	6	16	8	5.4	....	....
Fort Worth	670	106	114	29.26	29.96	+ .04	79.4	— 0.7	100	3	89	59	12	70	27	67	62	62	3.03	+ 0.1	8	7,582	s.	32	e.	27	5	16	9	5.7	....	....
Galveston	54	106	114	29.95	30.01	+ .04	78.5	— 2.4	91	19	82	68	12	75	15	73	71	80	2.51	— 2.2	5	8,496	s.	39	ne.	26	15	10	5	3.8	....	....
Houston	138	111	121	29.85	29.99	.....	78.9	— 2.1	94	1	87	64	12	70	24	.....	.....	.....	2.63	.....	9	5,806	se.	38	se.	26	8	14	8	5.4	....	....
Palestine	510	64	72	29.49	30.01	+ .07	77.4	— 1.0	93	2	87	56	12	68	27	70	68	80	1.51	— 2.5	7	5,019	s.	23	se.	28	17	11	2	3.5	....	....
San Antonio	701	80	91	29.24	29.95	+ .05	79.2	— 1.2	95	1	88	64	13	70	26	70	66	74	2.90	— 0.2	12	4,007	se.	18	s.	24	13	10	7	4.7	....	....
Taylor	583	55	63	29.40	30.01	+ .09	78.8	— 1.2	96	20	89	60	15	69	29	.....	.....	.....	1.49	— 2.0	8	6,253	s.	28	e.	17	7	16	7	5.5	....	....

TABLE I.—*Climatological data for United States Weather Bureau stations, June, 1913*—Continued.

District and stations.	Elevation of instruments.			Pressure in inches.			Temperature of the air, in degrees Fahrenheit.										Mean wet thermometer.	Mean temperature of the dew point.	Mean relative humidity, per cent.	Precipitation, inches.			Wind.				Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall.	Snow on ground at end of month.
	Barometer above sea level, feet.	Thermometer above ground.	Anemometer above ground.	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.					Total.	Departure from normal.	Days with 0.01, or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.						
Ohio Valley and Tenn.							**74.1**	**+ 0.9**											**64**	**2.33**	**— 1.9**								**3.7**		
Chattanooga	762	189	213	29.27	30.07	+ .07	76.0	+ 0.6	98	29	88	50	12	64	33	66	62	68	4.13	— 0.2	11	4,795	w.	46	nw.	21	12	16	2	4.0	.....	.....
Knoxville	996	93	100	29.02	30.06	+ .06	75.1	+ 1.7	95	17	87	48	12	64	35	66	61	67	1.56	— 2.6	10	3,080	ne.	30	ne.	21	13	12	5	4.3	.....	.....
Memphis	399	76	97	29.64	30.06	+ .09	78.0	+ 0.3	96	27	87	56	11	69	25	70	67	70	0.97	— 3.4	6	4,334	sw.	52	nw.	6	18	7	5	3.1	.....	.....
Nashville	546	168	191	29.49	30.07	+ .08	77.3	+ 1.0	100	29	89	50	12	65	34	67	62	64	0.90	— 3.5	6	5,265	w.	46	n.	18	13	14	3	3.8	.....	.....
Lexington	987	75	102	29.03	30.08	+ .08	73.4	+ 0.2	95	30	84	45	9	63	28	.....	.....	.....	3.29	— 0.7	8	5,736	sw.	40	w.	1	18	8	4	3.6	.....	.....
Louisville	525	219	255	29.49	30.07	+ .09	76.2	+ 1.2	100	29	87	47	9	65	31	66	60	62	4.55	+ 0.3	10	6,750	s.	56	nw.	17	19	3	8	3.8	.....	.....
Evansville	431	72	82	29.58	30.04	+ .07	78.1	+ 2.8	100	29	89	48	9	67	29	66	60	59	1.55	— 2.6	7	4,353	ne.	33	n.	30	15	10	5	3.8	.....	.....
Indianapolis	822	154	164	29.18	30.05	+ .08	74.2	+ 1.8	97	30	85	42	9	63	29	63	57	60	2.35	— 2.0	9	6,392	ne.	38	sw.	19	12	12	6	4.7	.....	.....
Terre Haute	575	96	129	29.43	30.03	.....	76.0	.....	100	29	88	44	9	64	36	64	57	57	1.06	.....	6	6,311	sw.	50	ne.	15	8	18	4	4.7	.....	.....
Cincinnati	628	152	160	29.40	30.06	+ .07	74.8	+ 1.1	98	28	86	43	9	64	33	65	58	59	2.29	— 1.7	8	4,183	sw.	25	nw.	1	15	12	3	3.2	.....	.....
Columbus	824	173	222	29.20	30.06	+ .07	71.8	+ 0.8	98	30	84	39	9	60	32	62	57	63	1.56	— 1.9	8	7,030	ne.	60	nw.	1	22	6	2	2.0	.....	.....
Dayton	899	181	216	29.12	30.05	.....	72.5	+ 0.3	98	30	84	40	9	61	32	63	57	62	2.67	— 1.3	10	6,507	ne.	42	nw.	1	19	6	5	3.1	.....	.....
Pittsburgh	842	353	410	29.16	30.05	+ .06	70.5	— 0.6	93	30	82	43	10	59	32	61	55	60	1.04	— 2.8	5	7,026	nw.	52	nw.	20	17	9	4	3.2	.....	.....
Elkins	1,940	41	50	28.06	30.06	+ .06	67.4	+ 0.8	92	30	81	34	10	54	40	61	57	74	2.83	— 2.2	9	2,174	nw.	26	nw.	1	10	17	3	4.7	.....	.....
Parkersburg	638	77	84	29.42	30.08	+ .08	72.4	+ 0.9	97	30	84	44	11	60	36	64	59	69	2.96	— 1.7	10	3,294	n.	34	w.	1	20	6	4	3.2	.....	.....
Lower Lake Region.							**66.4**	**— 0.6**											**65**	**1.82**	**— 1.8**								**3.4**		
Buffalo	767	247	280	29.22	30.05	+ .08	63.4	— 1.7	83	24	70	41	8	57	21	58	54	74	1.69	— 1.4	10	9,328	sw.	46	w.	15	12	15	3	4.0	.....	.....
Canton	448	10	61	29.55	30.02	.....	62.0	— 3.8	87	27	74	35	9	50	40	.....	.....	.....	1.15	— 2.3	8	7,003	sw.	39	sw.	1	10	14	6	4.6	.....	.....
Oswego	335	76	91	29.65	30.02	+ .05	62.0	— 1.8	89	30	70	44	9	54	33	56	52	70	1.91	— 1.5	9	5,484	sw.	26	ne.	8	15	9	6	3.6	.....	.....
Rochester	523	86	102	29.48	30.04	+ .07	65.5	— 0.6	91	30	76	40	10	55	31	57	51	61	2.11	— 1.0	8	5,601	w.	24	w.	15	18	6	6	3.7	.....	.....
Syracuse	597	97	113	29.40	30.04	+ .07	64.4	— 2.5	88	25	74	37	9	54	33	57	52	63	2.10	— 1.8	10	6,580	nw.	35	nw.	2	18	7	5	3.6	.....	.....
Erie	714	92	102	29.29	30.05	+ .07	65.9	— 1.1	90	30	74	42	9	58	28	60	56	73	2.79	— 1.0	9	6,106	w.	35	nw.	15	17	11	2	3.3	.....	.....
Cleveland	762	190	201	29.25	30.06	+ .08	68.2	+ 0.3	90	30	76	45	10	60	30	60	54	64	1.33	— 2.4	7	8,534	n.	64	sw.	19	14	12	4	3.5	.....	.....
Sandusky	629	62	70	29.39	30.07	+ .09	69.5	+ 0.7	97	30	79	46	10	60	32	61	55	62	1.54	— 2.3	11	5,188	ne.	34	nw.	20	16	8	6	3.8	.....	.....
Toledo	628	208	246	29.39	30.07	+ .10	69.9	+ 0.5	97	30	80	39	8	59	31	61	56	64	2.12	— 1.3	11	9,457	sw.	42	e.	16	20	8	2	2.7	.....	.....
Fort Wayne	856	113	124	29.15	30.06	.....	70.7	+ 2.2	98	30	82	39	8	59	31	62	56	61	0.69	.....	7	6,180	sw.	36	w.	19	25	3	2	1.9	.....	.....
Detroit	730	218	258	29.29	30.07	+ .10	69.0	+ 1.2	95	16	80	39	8	58	31	60	54	62	1.42	— 2.5	8	7,835	ne.	69	nw.	19	17	9	4	3.2	.....	.....
Upper Lake Region.							**69.0**	**+ 1.9**											**67**	**2.27**	**— 1.1**								**3.8**		
Alpena	609	13	92	29.39	30.05	+ .09	62.2	+ 1.9	97	30	73	37	8	52	34	56	52	70	3.20	— 0.4	11	7,362	se.	46	sw.	26	13	15	2	3.7	.....	.....
Escanaba	612	54	60	29.37	30.03	+ .09	61.5	+ 0.9	87	16	70	36	9	53	32	56	52	70	2.51	— 1.1	9	6,829	s.	43	n.	6	16	9	5	3.4	.....	.....
Grand Haven	632	54	92	29.37	30.04	+ .08	65.2	+ 0.5	90	29	75	36	8	55	29	59	53	65	1.56	— 1.0	6	7,023	sw.	41	nw.	16	19	8	3	2.9	.....	.....
Grand Rapids	707	70	87	29.30	30.05	+ .08	69.8	+ 1.7	97	29	82	39	8	58	35	61	54	59	1.50	— 1.0	7	3,531	w.	24	sw.	25	15	13	2	3.6	.....	.....
Houghton	684	62	72	29.28	30.00	+ .06	61.7	+ 2.3	91	29	73	34	9	50	33	.....	.....	.....	2.54	— 1.0	10	5,852	w.	31	n.	6	16	9	5	4.0	.....	.....
Lansing	878	11	62	29.12	30.05	.....	67.6	+ 0.2	98	30	82	34	9	54	38	60	56	67	1.01	— 2.4	6	3,538	sw.	22	nw.	6	18	6	6	3.1	.....	.....
Ludington	637	60	66	29.36	30.05	.....	61.5	.....	86	16	71	34	8	52	31	56	51	68	2.93	.....	8	6,926	s.	41	w.	14	17	9	4	3.6	.....	.....
Marquette	734	77	111	29.24	30.04	+ .10	61.6	+ 3.1	95	29	73	35	8	50	36	55	48	63	2.76	— 0.8	9	6,925	sw.	49	sw.	5	17	8	5	3.6	.....	.....
Port Huron	638	70	120	29.37	30.06	+ .09	65.4	+ 1.6	95	16	76	38	10	54	35	58	53	67	2.76	— 0.5	7	6,905	n.	34	n.	7	16	10	4	3.3	.....	.....
Saginaw	641	62	64	29.36	30.05	.....	68.0	.....	98	30	80	39	9	56	33	60	54	63	2.56	— 0.1	5	4,348	w.	24	.....	6	15	12	3	3.8	.....	.....
Sault Sainte Marie	614	11	61	29.36	30.05	+ .09	58.6	+ 1.0	91	30	71	35	4	47	38	54	49	72	3.16	+ 0.4	9	5,542	w.	37	nw.	1	9	14	7	5.1	.....	.....
Chicago	823	140	310	29.19	30.06	+ .10	70.5	+ 4.2	99	30	79	44	7	62	41	62	56	62	1.08	— 2.6	6	8,625	sw.	38	n.	7	17	8	5	3.6	.....	.....
Green Bay	617	109	144	29.36	30.02	+ .07	67.0	+ 1.9	94	29	77	37	8	57	28	61	57	73	2.70	— 0.8	7	7,473	sw.	48	n.	6	10	13	7	5.4	.....	.....
Milwaukee	681	119	133	29.32	30.06	+ .11	66.8	+ 3.3	95	30	77	39	8	57	40	59	54	66	2.43	— 1.2	9	6,525	sw.	38	nw.	16	18	8	4	3.3	.....	.....
Duluth	1,133	11	47	28.81	30.02	+ .10	59.3	+ 1.6	88	15	70	37	7	49	37	53	48	69	2.03	— 2.5	13	8,610	ne.	46	nw.	6	15	9	6	4.1	.....	.....
North Dakota.							**66.5**	**+ 2.9**											**64**	**2.12**	**— 1.6**								**3.6**		
Moorhead	940	8	57	28.97	29.97	+ .07	67.8	+ 3.5	96	28	81	35	7	55	34	60	55	66	3.07	— 1.1	10	6,352	se.	30	nw.	17	23	7	0	1.9	.....	.....
Bismarck	1,674	8	57	28.18	29.93	+ .06	67.3	+ 3.1	100	28	80	33	7	55	38	59	55	67	2.06	— 1.5	9	9,015	s.	50	nw.	14	15	10	5	3.8	.....	.....
Devils Lake	1,482	11	44	28.36	29.91	+ .03	65.3	+ 2.7	96	28	78	34	7	52	41	57	50	60	1.28	— 2.2	11	9,207	s.	36	w.	30	17	9	4	3.4	.....	.....
Williston	1,872	40	47	27.93	29.87	+ .01	65.7	+ 2.2	94	23	78	42	6	54	34	56	50	62	2.08	— 1.5	10	6,906	se.	64	nw.	14	8	16	6	5.3	.....	.....
Upper Miss. Valley.							**73.3**	**+ 2.4**											**62**	**2.85**	**— 1.6**								**3.9**		
Minneapolis	918	102	208	.....	.....	.....	70.5	.....	95	28	81	43	7	60	38	.....	.....	.....	2.21	— 1.8	7	8,521	s.	61	nw.	17	15	12	3	3.8	.....	.....
St. Paul	837	201	236	29.10	29.99	+ .07	70.0	+ 2.6	95	15	80	43	8	60	35	61	54	60	3.05	— 1.4	7	8,857	sw.	64	nw.	17	19	9	2	3.3	.....	.....
La Crosse	714	11	48	29.26	30.02	+ .09	71.2	+ 3.0	97	28	83	40	8	60	33	.....	.....	.....	2.90	— 1.5	7	3,587	s.	24	s.	24	12	13	5	4.2	.....	.....
Madison	974	70	78	29.02	30.04	+ .10	69.0	+ 1.7	95	28	79	38	8	59	26	62	58	68	3.73	— 0.4	7	6,143	sw.	40	ne.	6	13	12	5	4.3	.....	.....
Charles City	1,015	10	49	28.96	30.01	+ .10	70.3	+ 1.5	96	15	83	39	9	58	35	63	58	67	2.21	— 2.9	6	4,916	sw.	27	s.	24	9	12	9	5.1	.....	.....
Davenport	606	71	79	29.38	30.03	+ .09	72.8	+ 1.9	97	29	83	39	8	62	28	64	59	63	6.09	+ 2.0	11	5,042	sw.	28	w.	30	15	8	7	4.0	.....	.....
Des Moines	861	84	97	29.10	29.99	+ .07	73.1	+ 2.7	96	16	83	44	8	63	29	64	58	63	3.52	— 1.4	8	5,900	sw.	38	sw.	24	13	11	6	4.1	.....	.....
Dubuque	698	81	96	29.31	30.04	+ .11	71.4	+ 1.8	96	28	82	40	8	61	12	63	58	64	1.92	— 2.6	8	4,152	s.	18	sw.	30	12	14	4	4.4	.....	.....
Keokuk	614	64	78	29.37	30.04	+ .10	74.8	+ 2.3	98	18	86	40	8	64	32	66	61	66	4.15	— 0.2	8	5,034	sw.	25	s.	25	21	7	2	2.8	.....	.....
Cairo	356	87	93	29.65	30.02	+ .05	78.3	+ 3.1	102	18	89	52	10	67	31	66	60	58	1.07	— 3.2	6	4,705	s.	39	w.	22	13	11	6	4.0	.....	.....
La Salle	536	56	64	29.50	30.07	+ .12	71.7	+ 1.6	99	29	84	39	8	60	37	.....	.....	.....	3.32	— 0.7	8	5,160	sw.	31	sw.	15	15	6	9	4.2	.....	.....
Peoria	609	11	45	29.39	30.05	+ .10	73.2	+ 2.3	99	29	86	40	8	61	38	64	59	65	2.50	— 1.8	8	4,042	s.	22	ne.	7	18	4	8	3.3	.....	.....
Springfield, Ill	644	10	49	29.36	30.03	+ .08	76.2	+ 3.9	100	29	89	41	8	64	34	64	56	54	1.84	— 2.5	5	5,704	sw.	27	nw.	21	15	9	6	3.8	.....	.....
Hannibal	534	74	109	29.46	30.03	+ .08	75.2	+ 1.9	99	18	88	43	11	63	41	.....	.....	.....	2.31	— 1.2	6	6,566	sw.	34	s.	24	19	8	3	3.3	.....	.....
St. Louis	567	208	217	29.43	30.03	+ .08	78.4	+ 3.3	99	29	89	47	9	68	27	65	57	53	1.55	— 2.9	5	6,313	s.	35	w.	21	14	12	4	3.9	.....	.....
Missouri Valley.							**73.6**	**+ 2.6**											**61**	**2.32**	**— 2.0**								**3.7**		
Columbia, Mo	784	11	84	29.21	30.02	+ .07	76.0	+ 1.5	98	18	88	43	11	64	37	.....	.....	.....	2.40	— 2.0	9	5,173	s.	30	s.	24	12	9	9	4.6	.....	.....
Kansas City	963	161	181	28.98	29.98	+ .06	75.8	+ 2.8	95	28	85	48	8	66	26	66	60	64	2.81	— 1.8	6	8,415	s.	39	sw.	4	11	15	4	4.6	.....	.....
St. Joseph	967	11	49	28.97	29.98	.....	75.2	.....	96	15	86	46	9	65	29	64	58	62	1.24	.....	10	5,791	s.	34	nw.	20	15	10	5	3.9	.....	.....
Springfield, Mo	1,324	98	104	28.65	30.03	+ .08	74.2	+ 1.9	92	1	84	47	10	64	25	64	59	64	2.71	— 2.5	6	6,383	s.	34	sw.	23	22	7	1	2.1	.....	.....
Iola	984	11	50	28.97	29.99	+ .06	75.0	+ 1.6	97	27	87	44	10	63	34	.....	.....	.....	4.26	— 0.5	7	5,271	s.	25	s.	24	15	10	5	3.9	.....	.....
Topeka	983	85	101	.....	.....	.....	74.4	+ 0.9	96	27	85	47	8	64	33	.....	.....	.....	3.38	— 1.4	7	7,488	s.	39	sw.	24	14	12	4	4.1	.....	.....
Lincoln	1,189	11	84	28.71	29.95	+ .05	74.0	+ 2.4	99	26	85	43	10	62	34	63	58	63	2.27	— 2.0	10	8,363	s.	56	nw.	1	13	12	5	3.9	.....	.....
Omaha	1,105	115	121	28.81	29.96	+ .05	74.4	+ 2.8	96	15	84	46	8	64	28	64	57	59	2.28	— 2.8	12	5,917	s.	42	n.	1	15	9	6	4.2	.....	.....
Valentine	2,598	47	54	27.26	29.92	+ .06	70.9	+ 3.8	101	27	83	44	7	59	41	61	55	62	1.03	— 2.8	7	8,938	s.	43	nw.	2	22	6	2	3.0	.....	.....
Sioux City	1,135	94	164	28.77	29.96	+ .06	72.3	+ 2.9	96	15	83	44	8	62	31	63	57	63	0.75	— 3.1	8	10,039	s.	49	e.	15	21	6	3	2.8	.....	.....
Huron	1,306	56	67	28.57	29.94	+ .06	70.6	+ 4.0	98	17	84	36	7	57	34	61	55	61	1.06	— 2.7	4	8,620	s.	34	s.	28	16	14	0	2.8	.....	.....
Pierre	1,572	70	75	28.28	29.92	+ .05	73.4	+ 4.5	104	27	85	46	7	62	37	60	51	51	0.32	— 2.8	2	8,633	se.	46	n.	16	16	10	4	4.1	.....	.....
Yankton	1,233	49	57	28.65	29.94	+ .05	71.9	+ 2.5	98	15	83	44	8	61	34	.....	.....	.....	4.58	+ 0.3	8	6,260	s.	38	nw.	25	12	17	1	4.0	.....	.....

TABLE I.—*Climatological data for United States Weather Bureau stations, June, 1913*—Continued.

District and stations.	Elevation of instruments.			Pressure in inches.			Temperature of the air, in degrees Fahrenheit.										Mean wet thermometer.	Mean temperature of the dew point.	Mean relative humidity, per cent.	Precipitation, inches.			Wind.					Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall.	Snow on ground at end of month.
	Barometer above sea level, feet.	Thermometer above ground.	Anemometer above ground.	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.					Total.	Departure from normal.	Days with 0.01, or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.						
Northern Slope.							**63.5**	**+ 1.4**											**64**	**2.28**	**0.0**									**5.2**		
Havre	2,505	11	44	27.25	29.84	− .01	65.1	+ 2.7	88	9	77	44	25	53	37	57	53	68	1.48	− 1.3	14	5,788	e.	35	w.	14	11	12	7	5.3	.....	.....
Helena	4,110	87	114	25.74	29.86	− .02	61.4	+ 0.8	85	1	73	42	15	50	34	51	45	63	2.64	+ 0.5	20	5,882	s.	52	s.	8	6	9	15	6.5	.....	.....
Kalispell	2,962	11	34	26.84	29.85	− .04	60.7	+ 1.9	86	7	74	34	15	48	38	51	45	66	3.21	+ 1.5	16	3,191	w.	37	sw.	19	9	16	5	4.8	.....	.....
Miles City	2,371	26	48	27.38	29.88	+ .03	69.2	+ 3.2	90	14	81	47	6	57	38	60	56	69	3.32	+ 0.6	15	4,210	ne.	28	n.	14	7	22	1	4.3	.....	.....
Rapid City	3,234	46	50	26.57	29.92	+ .07	66.6	+ 2.8	94	23	78	46	7	55	36	58	53	65	3.50	− 0.1	12	5,622	se.	34	w.	5	11	11	8	5.0	.....	.....
Cheyenne	6,088	58	64	24.03	29.88	+ .04	60.8	− 0.7	88	16	74	40	12	47	36	50	44	61	1.18	− 0.4	9	7,343	s.	38	se.	10	6	17	7	5.9	.....	.....
Lander	5,372	60	68	24.62	29.86	+ .01	62.1	+ 0.8	88	22	77	40	29	47	40	50	41	55	1.00	− 0.1	9	4,079	sw.	48	sw.	23	8	16	6	5.2	.....	.....
Sheridan	3,790	10	47	26.05	29.88	.....	64.0	.....	90	22	77	43	5	51	37	56	51	67	3.90	.....	13	4,775	se.	44	se.	17	7	21	2	4.9	.....	.....
Yellowstone Park	6,200	11	48	23.87	29.88	+ .02	54.9	− 1.1	76	19	67	37	15	43	36	45	39	62	2.09	+ 0.4	15	5,005	sw.	35	s.	14	3	16	11	6.2	.....	.....
North Platte	2,821	11	51	27.07	29.94	+ .08	70.6	+ 2.2	99	27	82	43	8	59	40	61	55	63	2.13	− 1.1	8	5,797	s.	27	s.	28	15	11	4	3.4	.....	.....
Middle Slope.							**72.4**	**+ 0.5**											**60**	**1.95**	**− 1.2**									**5.2**		
Denver	5,291	129	172	24.73	29.88	+ .04	67.0	+ 0.6	95	27	81	46	13	53	39	53	44	51	1.10	− 0.4	7	5,955	sw.	44	sw.	28	9	18	3	4.9	.....	.....
Pueblo	4,685	80	86	25.28	29.88	+ .05	68.8	− 0.2	96	26	82	49	10	56	39	53	42	48	0.66	− 0.8	7	5,038	se.	41	nw.	12	8	18	4	4.8	.....	.....
Concordia	1,398	42	50	28.51	29.95	+ .05	75.2	+ 2.5	99	26	86	47	10	64	30	64	59	64	2.76	− 2.2	6	6,147	s.	26	s.	25	6	15	9	5.7	.....	.....
Dodge City	2,509	11	51	27.40	29.95	+ .08	72.5	− 0.6	97	25	83	48	9	62	30	63	59	70	2.02	− 1.3	12	8,963	se.	36	se.	26	10	15	5	5.4	.....	.....
Wichita	1,358	139	158	28.55	29.95	+ .04	75.0	+ 0.7	94	27	84	50	8	66	28	63	57	60	1.36	− 3.4	9	10,270	s.	46	s.	25	11	13	6	4.6	.....	.....
Oklahoma	1,214	10	47	28.72	29.97	+ .06	75.6	− 0.1	99	1	85	53	10	66	32	66	61	68	3.82	+ 0.8	8	9,534	s.	37	s.	23	11	6	13	5.5	.....	.....
Southern Slope.							**74.8**	**− 2.4**											**68**	**3.48**	**+ 0.6**									**5.4**		
Abilene	1,738	10	52	28.19	29.96	+ .08	77.2	− 1.0	96	2	86	60	9	68	27	66	60	64	1.99	− 1.2	7	7,946	s.	34	se.	17	6	8	16	6.7	.....	.....
Amarillo	3,676	10	49	26.29	29.95	+ .10	70.2	− 1.8	93	2	81	51	10	60	34	61	57	71	2.32	− 0.7	14	8,476	s.	32	sw.	5	17	8	5	4.2	.....	.....
Del Rio	944	8	57	28.94	29.91	+ .06	79.4	− 2.7	98	2	88	65	8	71	24	.....	.....	.....	5.44	+ 2.3	10	6,086	se.	26	e.	16	3	20	7	5.9	.....	.....
Roswell	3,566	9	57	26.34	29.88	+ .08	72.4	− 3.9	94	25	85	55	6	60	37	62	57	69	4.17	+ 2.1	11	4,160	s.	27	e.	19	11	15	4	4.9	.....	.....
Southern Plateau.							**71.0**	**− 3.6**											**40**	**1.04**	**+ 0.7**									**2.6**		
El Paso	3,762	110	133	26.13	29.79	+ .04	76.8	− 2.8	96	26	89	55	8	64	32	58	45	41	0.91	+ 0.4	9	7,926	se.	50	se.	1	19	10	1	2.7	.....	.....
Santa Fe	7,013	57	62	23.30	29.84	+ .03	62.8	− 3.4	82	26	74	40	11	51	30	50	40	52	4.26	+ 3.2	10	6,507	se.	42	se.	10	8	21	1	4.5	.....	.....
Flagstaff	6,907	8	57	.....	.....	.....	56.3	− 3.0	82	20	74	28	11	39	49	.....	.....	.....	0.04	.....	1	.....	sw.	44	sw.	9	15	12	3	.....	.....	.....
Phoenix	1,108	76	81	28.63	29.75	+ .01	81.9	− 2.5	105	21	97	55	11	67	39	59	39	26	0.00	− 0.1	0	4,552	e.	25	sw.	9	23	6	1	1.7	.....	.....
Yuma	141	9	58	29.61	29.75	+ .01	81.6	− 3.1	110	21	100	55	11	64	46	62	49	40	0.00	0.0	0	4,335	sw.	25	w.	10	30	0	0	0.2	.....	.....
Independence	3,910	11	42	25.91	29.84	+ .06	66.8	− 6.6	92	21	82	42	28	52	39	51	38	43	0.07	0.0	3	5,623	nw.	32	se.	25	14	10	6	3.7	.....	.....
Middle Plateau.							**63.9**	**− 1.3**											**47**	**1.36**	**+ 0.8**									**4.5**		
Reno	4,532	74	81	25.40	29.85	− .01	60.5	− 0.5	83	3	73	37	20	48	42	48	38	53	0.74	+ 0.5	7	5,932	w.	33	w.	8	11	12	7	4.8	.....	.....
Tonopah	6,090	12	20	24.00	29.82	.....	61.0	.....	84	21	72	34	9	50	32	46	33	43	0.79	+ 0.4	7	6,628	w.	36	nw.	11	11	17	2	4.2	.....	.....
Winnemucca	4,344	18	56	25.54	29.87	− .01	61.6	− 1.7	87	2	47	40	15	47	45	49	40	57	2.14	+ 1.5	13	4,090	sw.	29	sw.	13	10	11	9	5.1	.....	.....
Modena	5,479	10	43	24.56	29.81	− .01	61.8	− 1.4	87	21	77	39	1	46	46	46	32	40	0.44	0.0	7	10,012	sw.	54	sw.	26	15	11	4	3.9	0.5	.....
Salt Lake City	4,360	147	189	25.52	29.81	− .04	67.5	− 0.8	90	22	78	47	12	57	32	53	43	48	3.37	+ 2.6	13	6,106	s.	48	nw.	23	16	5	9	4.1	.....	.....
Durango	6,546	18	56	23.68	29.85	+ .03	61.0	− 1.7	85	16	78	37	11	44	44	46	36	50	1.69	+ 0.9	7	4,258	nw.	36	w.	9	9	17	4	4.9	.....	.....
Grand Junction	4,602	43	51	25.31	29.82	− .01	71.0	− 1.6	92	20	85	47	12	57	37	54	42	41	0.37	0.0	3	4,872	se.	31	sw.	10	11	14	5	4.6	.....	.....
Northern Plateau.							**63.8**	**− 1.1**											**60**	**2.54**	**+ 1.4**									**6.1**		
Baker	3,471	48	53	26.38	29.93	− .02	58.2	− 0.4	84	1	70	38	20	47	39	50	43	64	2.76	+ 1.6	11	3,784	nw.	23	sw.	7	9	11	10	5.3	.....	.....
Boise	2,739	78	86	27.05	29.87	− .04	65.0	− 1.0	89	2	76	45	20	54	34	53	44	55	1.64	+ 0.8	13	3,826	nw.	30	se.	3	7	11	12	6.3	.....	.....
Lewiston	757	40	48	29.07	29.87	− .07	66.6	− 2.5	95	1	79	47	15	55	41	.....	.....	.....	3.78	+ 2.7	13	2,120	ne.	29	ne.	19	10	8	12	5.7	.....	.....
Pocatello	4,477	46	54	25.40	29.85	− .02	63.0	− 1.2	86	21	75	42	11	51	40	53	47	64	1.96	+ 1.0	11	5,174	se.	32	sw.	30	4	14	12	6.4	.....	.....
Spokane	1,929	101	110	27.86	29.88	− .06	63.2	− 0.2	90	2	74	45	15	52	39	53	45	59	3.01	+ 1.4	13	4,556	s.	26	sw.	7	8	4	18	6.7	.....	.....
Walla Walla	1,000	107	115	.....	29.90	− .06	66.8	− 1.4	94	2	77	50	15	56	33	.....	.....	.....	2.11	+ 0.9	16	5,271	s.	31	ne.	18	11	12	7	.....	.....	.....
N. Pac. Coast Region.							**58.2**	**+ 0.6**											**79**	**3.67**	**+ 1.6**									**6.2**		
North Head	211	11	56	29.78	30.01	+ .02	55.5	+ 0.5	64	20	59	48	5	52	12	53	51	88	5.14	+ 3.4	17	10,599	nw.	45	se.	12	7	10	13	6.2	.....	.....
Port Crescent	259	8	53	29.72	30.00	− .03	53.2	− 0.2	74	1	61	34	16	45	31	.....	.....	.....	2.41	+ 0.6	14	3,680	w.	15	ne.	17	3	15	12	6.6	.....	.....
Seattle	125	215	250	29.86	29.98	− .02	50.5	− 0.6	81	2	67	47	15	52	27	55	52	79	1.71	0.0	14	6,385	s.	32	sw.	15	7	11	12	6.1	.....	.....
Tacoma	213	113	120	29.76	29.98	− .05	59.6	+ 0.2	82	2	68	45	16	51	29	54	50	74	2.16	0.0	14	4,351	n.	24	sw.	14	4	14	12	6.3	.....	.....
Tatoosh Island	86	7	57	29.88	29.97	− .05	54.7	+ 1.7	65	22	59	45	16	50	15	53	51	91	6.75	+ 2.6	16	7,473	sw.	35	e.	17	5	11	14	6.6	.....	.....
Portland, Oreg.	153	68	106	29.81	29.96	− .08	62.9	+ 1.6	87	1	72	47	5	54	31	55	50	69	4.24	+ 2.5	16	4,164	nw.	24	sw.	14	8	8	14	5.9	.....	.....
Roseburg	510	9	57	29.44	29.98	− .05	61.7	+ 0.8	93	1	73	42	16	51	39	54	50	73	3.27	+ 2.2	16	2,251	n.	17	w.	18	7	13	10	5.8	.....	.....
M. Pac. Coast Region.							**60.7**	**− 1.9**											**69**	**0.33**	**0.0**									**4.0**		
Eureka	62	73	89	29.98	30.05	.00	55.3	+ 0.7	65	21	60	45	5	51	16	52	51	87	1.60	+ 0.5	15	4,875	n.	29	n.	4	7	16	7	5.7	.....	.....
Mount Tamalpais	2,375	11	18	27.50	29.96	+ .01	56.7	− 7.4	78	29	64	41	9	50	21	50	44	68	0.04	− 0.4	3	13,760	nw.	74	nw.	14	16	10	4	3.0	.....	.....
Point Reyes Light	490	7	18	29.42	29.94	.....	53.8	+ 1.0	63	18	57	47	6	50	12	.....	.....	.....	0.04	.....	2	19,733	nw.	74	nw.	10	12	3	15	5.5	.....	.....
Red Bluff	332	50	56	29.52	29.87	− .01	71.8	− 3.9	95	1	83	50	10	60	34	58	48	50	0.54	+ 0.1	5	3,906	se.	19	se.	25	15	8	7	3.9	.....	.....
Sacramento	69	106	117	29.83	29.90	+ .01	66.5	− 2.4	93	30	79	48	9	54	33	56	50	61	0.11	0.0	1	6,892	s.	26	s.	13	22	7	1	2.4	.....	.....
San Francisco	155	200	204	29.80	29.97	+ .01	58.2	+ 1.2	73	21	64	50	6	52	19	53	50	80	0.02	− 0.2	2	8,074	w.	31	w.	5	14	10	6	4.1	.....	.....
San Jose	141	12	110	29.82	29.97	.....	62.8	− 2.2	87	29	74	42	9	51	38	.....	.....	.....	0.01	− 0.1	1	5,057	nw.	26	nw.	27	14	13	3	3.3	.....	.....
Southeast Farallon	30	9	17	29.96	29.99	.....	54.6	.....	62	23	57	49	6	52	10	.....	.....	.....	0.02	− 0.2	1	10,966	nw.	48	nw.	20	14	7	9	4.1	.....	.....
Pac. Coast Region.							**65.2**	**− 0.9**											**68**	**0.34**	**+ 0.3**									**4.3**		
Fresno	327	89	98	29.53	29.88	+ .03	72.0	− 3.8	97	30	86	50	10	58	36	57	45	45	0.10	0.0	2	7,415	nw.	30	nw.	13	17	9	4	3.2	.....	.....
Los Angeles	338	150	191	29.56	29.92	+ .02	64.4	− 0.1	90	29	72	52	10	56	29	58	54	76	0.58	+ 0.5	2	4,026	sw.	18	sw.	18	12	8	10	5.1	.....	.....
San Diego	87	62	70	29.83	29.92	.00	62.8	− 1.0	79	30	67	56	11	58	20	58	55	80	0.09	+ 0.1	4	4,847	s.	24	nw.	29	11	14	5	4.5	.....	.....
San Luis Obispo	201	47	54	29.76	29.98	+ .03	61.6	+ 1.2	91	21	72	44	11	52	33	54	49	71	0.59	+ 0.5	1	4,789	nw.	25	nw.	28	12	10	8	4.3	.....	.....
West Indies.																																
San Juan	82	8	54	29.96	30.05	+ .06	77.8	.....	85	6	82	70	24	73	13	.....	.....	.....	4.80	− 1.1	19	10,185	e.	36	e.	23	6	20	4	5.4	.....	.....
Panama.																																
Ancon	92	6	69	29.73	29.83	.....	80.2	.....	93	9	88	70	12	73	19	76	74	89	8.15	.00	19	3,978	nw.	32	s.	11	3	7	20	7.4	.....	.....
Culebra	404	5	62	29.42	29.84	.....	80.1	.....	92	5	88	69	24	72	22	74	74	91	9.10	+ .23	19	3,695	nw.	31	s.	11	1	11	18	7.5	.....	.....
Colon	10	5	71	29.84	29.85	.....	80.2	.....	91	22	85	73	11	76	17	76	75	88	11.81	−1.51	22	5,420	se.	27	s.	11	4	11	15	6.8	.....	.....

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during June, 1913, at all stations furnished with self-registering gages.*

Stations.	Date.	Total duration.		Total amount of precipitation.	Excessive rate.		Amount before excessive rate began.	Depths of precipitation (in inches) during periods of time indicated.												
		From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Abilene, Tex.	8			0.66														.40			
Albany, N. Y.	25	1.23 p. m.	3.20 p. m.	0.92	2.22 p. m.	2.55 p. m.	.10	.23	.41	.57	.70	.75	.79								
Alpena, Mich.	26	4.25 p. m.	7.45 p. m.	0.90	5.49 p. m.	6.12 p. m.	.05	.10	.22	.28	.44	.48									
	27	1.42 p. m.	2.25 p. m.	0.57	1.42 p. m.	2.00 p. m.	.00	.06	.21	.48	.55										
Amarillo, Tex.	12			0.76														.29			
Anniston, Ala.	29	4.48 p. m.	6.15 p. m.	1.02	4.57 p. m.	5.33 p. m.	.01	.13	.29	.44	.59	.74	.82	.85							
Asheville, N. C.	7			0.97														.47			
Atlanta, Ga.	22	3.20 p. m.	5.10 p. m.	1.27	3.40 p. m.	4.42 p. m.	.01	.12	.28	.44	.48	.49	.49	.50	.54	.64	.92	1.14	1.25		
Atlantic City, N. J.	7	7.15 p. m.	D. N. p. m.	1.10	7.35 p. m.	8.07 p. m.	.02	.24	.39	.56	.69	.75	.82	.85							
Augusta, Ga.	7	6.20 p. m.	8.30 p. m.	0.71	7.17 p. m.	7.29 p. m.	.04	.23	.58	.64											
	8	7.10 p. m.	D. N. p. m.	0.90	7.14 p. m.	7.25 p. m.	.01	.44	.72	.77											
	22	7.05 p. m.	10.30 p. m.	1.38	7.16 p. m.	7.53 p. m.	.01	.11	.39	.60	.74	.87	1.06	1.14	1.20						
Baker, Oreg.	9			0.61														.40			
Baltimore, Md.	21	4.10 p. m.	5.04 p. m.	0.56	4.19 p. m.	4.28 p. m.	.01	.31	.46												
Bentonville, Ark.	4	4.40 p. m.	8.05 p. m.	0.84	6.58 p. m.	7.17 p. m.	.21	.11	.30	.46	.56										
Binghamton, N. Y.	3			0.16														.16			
Birmingham, Ala.	7	10.52 a. m.	11.24 a. m.	0.46	10.52 a. m.	11.15 a. m.	.00	.06	.19	.30	.41	.46									
	29	8.22 p. m.	D. N. p. m.	0.84	8.26 p. m.	8.49 p. m.	.01	.16	.34	.40	.64	.75									
Bismarck, N. Dak.	13			0.41														.39			
Block Island, R. I.	20			0.27														.15			
Boise, Idaho	9			0.44														.23			
Boston, Mass.	7			0.34														.21			
Buffalo, N. Y.	1			0.41														.32			
Burlington, Vt.	16	7.20 p. m.	8.20 p. m.	0.50	7.52 p. m.	8.04 p. m.	.01	.22	.42	.48											
Cairo, Ill.	6	1.38 p. m.	2.08 p. m.	0.46	1.48 p. m.	2.03 p. m.	.01	.14	.35	.42											
Canton, N. Y.	15			0.22														.17			
Charles City, Iowa.	25			0.61														.49			
Charleston, S. C.	17	8.20 p. m.	12.18 p. m.	0.77	8.40 p. m.	8.57 p. m.	.02	.18	.23	.36	.38										
Charlotte, N. C.	2	D. N. a. m.	D. N. a. m.	0.89	12.09 a. m.	12.29 a. m.	.03	.12	.31	.49	.58										
	27	6.35 p. m.	9.52 p. m.	0.63	6.42 p. m.	6.53 p. m.	.01	.29	.45	.49											
Chattanooga, Tenn.	5	8.20 p. m.	9.10 p. m.	0.76	8.26 p. m.	8.41 p. m.	.01	.37	.65	.73											
	7	4.57 p. m.	6.37 p. m.	0.63	5.14 p. m.	5.49 p. m.	.04	.06	.11	.21	.29	.38	.48	.55							
	21	1.32 p. m.	5.58 p. m.	1.04	1.40 p. m.	2.10 p. m.	.02	.09	.20	.51	.79	.86	.91								
Cheyenne, Wyo.	23			0.21																	
Chicago, Ill.	25			0.31														.21			
Cincinnati, Ohio.	21–22	8.45 p. m.	3.15 a. m.	0.80	8.51 p. m.	9.04 p. m.	.02	.09	.26	.37								.30			
Cleveland, Ohio.	19			0.44														.36			
Columbia, Mo.	23	6.50 p. m.	10.30 p. m.	1.28	7.46 p. m.	8.04 p. m.	.25	.30	.57	.79	.84										
Columbia, S. C.	26–27	D. N. p. m.	D. N. a. m.	0.71	11.53 p. m.	12.13 a. m.	.01	.21	.43	.58	.66										
Columbus, Ohio.	18	12.07 p. m.	12.42 p. m.	0.56	12.11 p. m.	12.25 p. m.	.02	.43	.50												
Concord, N. H.	19			0.00														.04			
Concordia, Kans.	4	2.37 p. m.	6.17 p. m.	1.40	3.24 p. m.	3.38 p. m.	.38	.13	.45	.64											
Corpus Christi, Tex.	28			1.44														.43			
Davenport, Iowa.	30	2.59 p. m.	4.15 p. m.	0.55	3.04 p. m.	3.30 p. m.	.02	.08	.27	.34	.40	.50	.53								
Dayton, Ohio.	21–22			0.85														*			
Del Rio, Tex.	17	12.35 p. m.	1.05 p. m.	0.78	12.35 p. m.	12.58 p. m.	.00	.07	.28	.40	.63	.77									
	18	4.50 a. m.	5.55 a. m.	0.63	5.30 a. m.	5.52 a. m.	.07	.09	.31	.42	.50	.56									
	28	4.40 p. m.	5.45 p. m.	0.76	4.54 p. m.	5.11 p. m.	.13	.22	.44	.55	.60										
Denver, Colo.	5			0.41														.41			
Des Moines, Iowa.	24	8.02 p. m.	9.15 p. m.	1.08	8.02 p. m.	8.57 p. m.	.00	.22	.55	.68	.68	.68	.68	.68	.68	1.80	1.0	1.08			
	24–25	10.25 p. m.	5.20 a. m.	0.93	10.31 p. m.	10.44 p. m.	.01	.14	.39	.47											
Detroit, Mich.	19			0.65														.50			
Devils Lake, N. Dak.	17			0.35														.29			
Dodge City, Kans.	13			1.19														.36			
Dubuque, Iowa.	6	12.16 p. m.	2.30 p. m.	0.68	12.34 p. m.	12.57 p. m.	.05	.25	.42	.50	.57	.61									
Duluth, Minn.	27	1.00 a. m.	7.05 a. m.	0.68	5.16 a. m.	5.31 a. m.	.08	.36	.46	.55											
Durango, Colo.	10			0.96														.35			
Eastport, Me.	27			0.16														.11			
Elkins, W. Va.	23			0.88														.42			
El Paso, Tex.	10			0.28														.28			
Erie, Pa.	28	1.02 a. m.	D. N. a. m.	0.98	1.28 a. m.	1.38 a. m.	.07	.30	.49												
Escanaba, Mich.	6	12.26 p. m.	12.40 p. m.	0.31	12.28 p. m.	12.35 p. m.	.01	.20	.30												
Eureka, Cal.	18			0.23														.15			
Evansville, Ind.	7			0.74														.52			
Flagstaff, Ariz.	18			0.04														*			
Fort Smith, Ark.	8			0.37														.14			
Fort Wayne, Ind.	1			0.21														.21			
Fort Worth, Tex.	8	7.42 a. m.	9.23 a. m.	0.64	7.57 a. m.	8.15 a. m.	.01	.20	.33	.52	.60										
	17	1.26 p. m.	4.50 p. m.	0.90	2.38 p. m.	3.26 p. m.	.06	.06	.16	.24	.36	.46	.56	.62	.72	.80	.83				
Fresno, Cal.	1			0.04														.04			
Galveston, Tex.	26	4.34 p. m.	8.20 p. m.	0.64	4.36 p. m.	4.50 p. m.	.01	.10	.26	.43											
Grand Haven, Mich.	20			0.72														.46			
Grand Junction, Colo.	24			0.24														.14			
Grand Rapids, Mich.	25	1.30 p. m.	2.25 p. m.	0.48	1.43 p. m.	1.54 p. m.	.03	.23	.39	.44											
Green Bay, Wis.	6	6.07 a. m.	9.15 a. m.	0.50	6.12 a. m.	6.32 a. m.	.01	.19	.37	.44											
Hannibal, Mo.	24	8.32 p. m.	D. N. p. m.	0.81	9.10 p. m.	9.52 p. m.	.09	.13	.24	.29	.43	.51	.54	.57	.63	.71					
Harrisburg, Pa.	26			0.38														.32			
Hartford, Conn.	7	2.32 p. m.	4.20 p. m.	1.54	2.44 p. m.	3.25 p. m.	.01	.15	.49	.79	.94	1.07	1.27	1.32	1.39	1.43					
Hatteras, N. C.	12			0.34														.31			
Havre, Mont.	20			0.58														.25			
Helena, Mont.	7			0.22														.22			
Houghton, Mich.	14	5.04 p. m.	6.00 p. m.	0.61	5.09 p. m.	5.29 p. m.	.01	.18	.31	.43	.54										
Houston, Tex.	28	10.15 a. m.	12.55 p. m.	1.29	11.32 a. m.	12.04 p. m.	.30	.10	.27	.41	.50	.51	.70	.80							
Huron, S. Dak.	29			0.76														.49			
Independence, Cal.	2–3			0.05														*			
Indianapolis, Ind.	1	9.18 a. m.	9.45 a. m.	0.43	9.23 a. m.	9.31 a. m.	.01	.33	.40												
Iola, Kans.	21	6.10 p. m.	9.25 p. m.	1.29	7.44 p. m.	7.59 p. m.	.43	.27	.57	.68											
	30	1.45 p. m.	3.50 p. m.	1.69	1.52 p. m.	2.20 p. m.	.02	.12	.26	.39	.90	1.44	1.62								
Jacksonville, Fla.	2	2.50 p. m.	4.15 p. m.	0.85	2.59 p. m.	3.35 p. m.	.01	.08	.18	.31	.45	.57	.67	.75	.80						
	9	11.54 a. m.	1.40 p. m.	1.42	12.20 p. m.	1.05 p. m.	.02	.32	.47	.59	.72	.90	1.08	1.12	1.18	1.28					
Kalispell, Mont.	27–28	8.10 p. m.	3.30 a. m.	1.29	8.12 p. m.	8.41 p. m.	.01	.07	.30	.37	.45	.50	.55								
Kansas City, Mo.	24	4.05 p. m.	6.15 p. m.	0.96	4.13 p. m.	5.09 p. m.	.02†	.07†	.13†	.18†	.23†	.33†	.42†	.52†	.62†	.71†	.79†	.90†			
	24	6.35 p. m.	9.00 p. m.	0.86	8.12 p. m.	8.35 p. m.	.19	.08	.22	.43	.59	.66									
Keokuk, Iowa.	24–25			1.98														.61			
Key West, Fla.	15	10.30 a. m.	2.35 p. m.	1.25	10.39 a. m.	11.10 a. m.	.03	.29	.48	.63	.84	1.07	1.19	1.20							
Knoxville, Tenn.	7			0.44														.34			
La Crosse, Wis.	6	1.09 p. m.	1.21 p. m.	0.39	1.09 p. m.	1.18 p. m.	.00	.26	.38												
Lander, Wyo.	8			0.30														.30			

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during June, 1913, at all stations furnished with self-registering gages*—Continued.

Stations.	Date.	Total duration.		Total amount of precipitation.	Excessive rate.		Amount before excessive rate began.	Depths of precipitation (in inches) during periods of time indicated.												
		From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Lansing, Mich.	20			0.53														.21			
La Salle, Ill.	1	5.07 a. m.	7.40 a. m.	0.47	5.57 a. m.	6.08 a. m.	.05	.13	.29	.31											
Lewiston, Idaho	24			0.83																	
Lexington, Ky.	1	6.58 p. m.	D. N. p. m.	0.84	7.21 p. m.	7.46 p. m.	.04	.15	.18	.25	.40	.48						.57			
Lincoln, Nebr.	4	3.30 p. m.	7.27 p. m.	0.97	5.11 p. m.	5.33 p. m.	.08	.09	.24	.34	.51	.55									
Little Rock, Ark.	22			1.61														*			
Los Angeles, Cal.	27			0.39														.13			
Louisville, Ky.	7	7.03 a. m.	8.50 a. m.	0.64	7.53 a. m.	8.11 a. m.	.06	.21	.43	.52	.57										
Do.	7–8	10.30 p. m.	4.00 a. m.	1.01	1.49 a. m.	2.21 a. m.	.27	.10	.18	.33	.41	.48	.59	.63							
Do.	23	4.20 p. m.	5.00 p. m.	0.74	4.23 p. m.	4.41 p. m.	.01	.23	.39	.58	.68										
Do.	24	3.46 p. m.	4.27 p. m.	0.89	3.46 p. m.	4.04 p. m.	.00	.43	.73	.83	.87										
Ludington, Mich.	19	D. N. a. m.	D. N. a. m.	0.51	4.42 a. m.	4.52 a. m.	.12	.21	.38												
Lynchburg, Va.	22–23	7.00 p. m.	7.15 a. m.	1.59	7.17 p. m.	7.35 p. m.	.01	.05	.17	.52	.68										
Macon, Ga.	7	4.18 p. m.	D. N. p. m.	1.88	4.22 p. m.	5.00 p. m.	.01	.23	.53	.91	1.14	1.30	1.38	1.43	1.49						
Madison, Wis.	14	6.45 p. m.	8.45 p. m.	0.64	7.22 p. m.	7.49 p. m.	.01	.08	.21	.27	.30	.51									
	16	5.35 p. m.	8.15 p. m.	1.59	5.44 p. m.	6.19 p. m.	.03	.15	.34	.52	.78	.98	1.10	1.17							
Marquette, Mich.	27	9.20 a. m.	10.58 a. m.	1.02	9.25 a. m.	9.47 a. m.	.01	.20	.65	.84	.92	.96									
Memphis, Tenn.	6	4.40 p. m.	5.30 p. m.	0.52	4.54 p. m.	5.10 p. m.	.01	.11	.23	.45	.50										
Meridian, Miss.	8	3.25 p. m.	7.20 p. m.	2.28	4.30 p. m.	5.17 p. m.	.54	.09	.42	.60	.85	.96	1.19	1.36	1.48	1.55	1.60				
Miami, Fla.	12	5.50 p. m.	7.45 p. m.	0.80	6.17 p. m.	7.07 p. m.	.01	.08	.19	.30	.34	.44	.48	.51	.56	.62	.70				
	20	3.53 p. m.	5.20 p. m.	0.78	4.23 p. m.	4.41 p. m.	.03	.12	.45	.64	.70										
Milwaukee, Wis.	20			1.09														.33			
Minneapolis, Minn.	26			0.86														.62			
Mobile, Ala.	28	7.20 p. m.	D. N. p. m.	1.65	7.22 p. m.	7.50 p. m.	.01	.38	.78	1.05	1.16	1.25	1.31					.12			
Modena, Utah	28			0.13																	
Montgomery, Ala.	5–6	9.10 p. m.	D. N. a. m.	0.94	9.38 p. m.	9.57 p. m.	.05	.19	.44	.56	.68										
Moorhead, Minn.	24	4.55 p. m.	11.30 p. m.	0.89	4.59 p. m.	5.19 p. m.	.01	.11	.24	.37	.50										
Mount Tamalpais, Cal.	8			0.01														.01			
Mount Weather, Va.	28	4.53 p. m.	5.13 p. m.	0.33	4.55 p. m.	5.01 p. m.	.01	.29	.31												
Nantucket, Mass.	4	10.59 a. m.	12.50 p. m.	0.55	11.31 a. m.	4.50 a. m.	.03	.13	.32	.41	.45										
Nashville, Tenn.	30			0.28														.28			
New Haven, Conn.	2			0.32														.28			
New Orleans, La.	21	1.27 p. m.	2.45 p. m.	1.50	1.46 p. m.	2.26 p. m.	.01	.27	.50	.60	.83	1.19	1.34	1.39	1.46						
	22	1.20 p. m.	2.30 p. m.	1.66	1.29 p. m.	1.54 p. m.	.01	.16	.75	1.34	1.56	1.61									
New York, N. Y.	7	3.44 p. m.	4.55 p. m.	0.77	3.57 p. m.	4.22 p. m.	.06	.14	.32	.47	.60	.66									
Norfolk, Va.	7–8	7.20 p. m.	4.00 p. m.	3.17	8.51 p. m.	9.34 p. m.	.15	.06	.22	.36	.49	.65	.74	.92	1.14	1.22					
	7–8	7.20 p. m.	4.00 p. m.	3.17	5.13 a. m.	6.09 a. m.	1.85	.08	.15	.20	.24	.28	.34	.39	.41	.50	.66	.81			
	24	7.30 p. m.	9.30 p. m.	0.78	8.30 p. m.	9.00 p. m.	.06	.10	.12	.12	.26	.59	.64	.70							
Northfield, Vt.	16			0.57														.42			
North Head, Wash.	14			0.53														.26			
North Platte, Nebr.	12			0.83														.54			
Oklahoma, Okla.	8	10.05 a. m.	12.50 p. m.	0.99	10.07 a. m.	10.46 a. m.	.01	.10	.20	.41	.56	.64	.69	.74	.78						
Omaha, Nebr.	1	12.35 a. m.	5.25 a. m.	1.08	12.41 a. m.	1.39 a. m.	.01	.12	.29	.43	.49	.51	.52	.53	.54	.58	.67	.81			
Oswego, N. Y.	1			0.69														.49			
Palestine, Tex.	28	2.58 p. m.	7.16 p. m.	0.50	3.20 p. m.	3.29 p. m.	.01	.21	.33												
Parkersburg, W. Va.	25	4.56 p. m.	5.45 p. m.	0.90	5.02 p. m.	5.18 p. m.	.03	.18	.47	.79	.85										
Pensacola, Fla.	8			0.53														.48			
Peoria, Ill.	1			0.35														.34			
Philadelphia, Pa.	20	8.03 p. m.	D. N. p. m.	1.62	8.18 p. m.	8.47 p. m.	.01	.34	.53	.73	.95	1.33	1.43								
Phoenix, Ariz.	‡																				
Pierre, S. Dak.	29			0.29														.29			
Pittsburgh, Pa.	20			0.59														.40			
Pocatello, Idaho	26			0.37														.29			
Point Reyes Light, Cal.	18			0.03														.02			
Port Huron, Mich.	6–7	9.15 p. m.	D. N. a. m.	0.90	9.31 p. m.	9.55 p. m.	.01	.09	.19	.40	.51	.56									
Portland, Me.	27			0.39														.19			
Portland, Oreg.	23			0.52														.17			
Providence, R. I.	7			0.39														.37			
Pueblo, Colo.	1			0.38														.29			
Raleigh, N. C.	23–24	7.51 p. m.	D. N. a. m.	1.64	7.53 p. m.	8.15 p. m.	.01	.50	.74	.86	.96	1.00									
	28	7.45 p. m.	D. N. p. m.	0.74	7.45 p. m.	8.02 p. m.	.00	.12	.39	.62	.67										
Rapid City, S. Dak.	18			0.51														.50			
Reading, Pa.	20	6.56 p. m.	7.36 p. m.	0.63	7.02 p. m.	7.20 p. m.	.02	.24	.39	.48	.61										
Red Bluff, Cal.	24			0.24														.24			
Reno, Nev.	5			0.44														.30			
Richmond, Va.	7	2.29 p. m.	9.15 p. m.	1.68	2.45 p. m.	3.45 p. m.	.13	.21	.32	.34	.34	.37	.41	.55	.67	.82	.99	1.09			
	22–23	8.34 p. m.	2.00 a. m.	1.34	8.38 p. m.	9.03 p. m.	.01	.30	.74	.82	.90	.95									
Rochester, N. Y.	27	2.58 a. m.	4.35 a. m.	0.73	2.58 a. m.	3.13 a. m.	.00	.37	.48	.54											
Roseburg, Oreg.	18			0.82														.27			
Roswell, N. Mex.	23	2.15 p. m.	2.40 p. m.	0.63	2.21 p. m.	2.30 p. m.	.01	.25	.61												
Sacramento, Cal.	9			0.11														.11			
Saginaw, Mich.	6	7.20 p. m.	9.25 p. m.	0.60	7.27 p. m.	7.43 p. m.	.01	.19	.34	.44	.45										
St. Joseph, Mo.	25			0.37														.25			
St. Louis, Mo.	22			0.88														.31			
St. Paul, Minn.	17	3.01 p. m.	4.33 p. m.	0.75	3.06 p. m.	3.26 p. m.	.01	.05	.35	.60											
	26	1.20 a. m.	4.30 a. m.	1.37	1.26 a. m.	2.31 a. m.	.01	.07	.27	.47	.51	.51	.51	.58	.64	.75	.91	1.07			
Salt Lake City, Utah	11			0.23														.21			
San Antonio, Tex.	28			0.59														.40			
San Diego, Cal.	25			0.03														.02			
Sand Key, Fla.	13	6.57 p. m.	8.00 p. m.	1.72	7.06 p. m.	7.53 p. m.	.01	.21	.60	.91	1.08	1.19	1.38	1.47	1.55	1.68	1.71				
Sandusky, Ohio	25	12.50 p. m.	1.13 p. m.	0.30	12.50 p. m.	12.55 p. m.	.00	.28													
San Francisco, Cal.	22			0.01														.01			
San Jose, Cal.	1			0.01														.01			
San Luis Obispo, Cal.	26			0.59														.16			
Santa Fe, N. Mex.	28			1.24														.50			
Sault Ste. Marie, Mich.	27	10.31 a. m.	1.10 p. m.	0.84	10.39 a. m.	10.53 a. m.	.04	.15	.34	.39											
Savannah, Ga.	22	3.25 p. m.	5.15 p. m.	1.72	3.43 p. m.	4.29 p. m.	.01	.40	.66	1.05	1.26	1.35	1.42	1.50	1.55	1.63	1.65				
Scranton, Pa.	7			0.37														.37			
Seattle, Wash.	22			0.32														.20			
Sheridan, Wyo.	15	4.30 p. m.	5.52 p. m.	0.54	5.30 p. m.	5.43 p. m.	.01	.17	.36	.50											
	18	12.05 p. m.	12.52 p. m.	0.68	12.21 p. m.	12.44 p. m.	.01	.23	.46	.53	.59	.66									
Shreveport, La.	8	4.05 p. m.	9.40 p. m.	2.13	4.39 p. m.	5.41 p. m.	.03	.15	.39	.56	.64	.97	1.20	1.34	1.46	1.61	1.75	1.92	1.99		
Sioux City, Iowa	29			0.28														.22			
Southeast Farallon, Cal.	8			0.02														.01			
Spokane, Wash.	13			0.57														.20			
Springfield, Ill.	21	4.50 p. m.	8.20 p. m.	0.74	4.54 p. m.	5.15 p. m.	.01	.19	.39	.45	.50	.54									
Springfield, Mo.	3	D. N. a. m.	8.50 a. m.	1.76	2.36 a. m.	3.10 a. m.	.07	.07	.13	.25	.47	.73	.82	.85							
Syracuse, N. Y.	26	2.07 p. m.	2.54 p. m.	0.37	2.11 p. m.	2.19 p. m.	T.	.24	.37												

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during June, 1913, at all stations furnished with self-registering gages*—Continued.

Stations.	Date.	Total duration.		Total amount of precipitation.	Excessive rate.		Amount before excessive rate began.	Depths of precipitation (in inches) during periods of time indicated.													
		From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Tacoma, Wash.	29			0.30														.20			
Tampa, Fla.	21	10.15 p. m.	11.55 p. m.	1.61	10.52 p. m.	11.21 p. m.	.06	.19	.54	.87	1.15	1.40	1.50								
	24	3.25 p. m.	4.20 p. m.	1.12	3.27 p. m.	3.56 p. m.	.01	.32	.55	.63	.64	.92	1.03								
	27	3.59 p. m.	5.58 p. m.	1.86	4.19 p. m.	4.49 p. m.	.01	.16	.61	1.19	1.55	1.65	1.71								
Tatoosh Island, Wash.	15			1.24														.45			
Taylor, Tex.	29			0.69														.26			
Terre Haute, Ind.	22			0.47														.33			
Thomasville, Ga.	4	11.32 a. m.	4.15 p. m.	2.11	1.27 p. m.	2.02 p. m.	.29	.09	.22	.54	.96	1.36	1.68	1.75							
Toledo, Ohio.	3			0.40														.39			
Tonopah, Nev.	26–27			0.55														.16			
Topeka, Kans.	4	6.53 p. m.	7.55 p. m.	0.63	6.55 p. m.	7.17 p. m.	.01	.12	.33	.46	.53	.57									
	6	5.15 p. m.	7.05 p. m.	0.98	5.59 p. m.	6.11 p. m.	.31	.27	.47	.50											
Valentine, Nebr.	19			0.40														.37			
Vicksburg, Miss.	10			0.10														.10			
Walla Walla, Wash.																					
Washington, D. C.	16	7.17 p. m.	9.35 p. m.	0.75	7.27 p. m.	7.48 p. m.	.01	.23	.33	.52	.67	.73									
Wichita, Kans.	13			0.35														.32			
Williston, N. Dak.	27–28	9.45 p. m.	12.30 a. m.	0.99	8.59 p. m.	10.11 p. m.	.01	.29	.54	.62											
Wilmington, N. C.	8–9	3.07 p. m.	D. N. a. m.	2.09	4.18 p. m.	5.17 p. m.	.55	.17	.29	.45	.57	.66	.71								
	28	9.35 p. m.	D. N. p. m.	0.87	9.37 p. m.	10.00 p. m.	.01	.15	.38	.51	.67	.82									
	29	1.01 p. m.	2.25 p. m.	0.68	1.06 p. m.	1.45 p. m.	.01	.17	.27	.27	.28	.32	.44	.59	.65						
Winnemucca, Nev.	23			0.66														.21			
Wytheville, Va.	24	2.53 p. m.	4.15 p. m.	0.61	2.55 p. m.	3.20 p. m.	.01	.19	.29	.36	.43	.59									
Yankton, S. Dak.	19–20	9.15 p. m.	2.45 a. m.	1.65	9.37 p. m.	10.35 p. m	.01	.16	.35	.57	.68	.69	.70	.71	.74	.82	.90	.98			
	25	9.25 p. m.	11.45 p. m.	2.24	10.43 p. m.	11.39 p. m.	.12	.11	.40	.61	.70	.95	1.11	1.31	1.54	1.70	1.83	2.12			
Yellowstone Park, Wyo.	11			0.79														.17			

*Self-register not working. ‡No precipitation occurred during month. †Record partly estimated.

TABLE III.—*Data furnished by the Canadian Meteorological Service, June, 1913.*

Districts and stations.	Pressure in inches.			Temperature.						Precipitation.		
	Station reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max.+ mean min.÷2.	Departure from normal.	Mean maximum.	Mean minimum.	Highest.	Lowest.	Total.	Departure from normal.	Snowfall.
St. Johns, N. F	29.66	29.80	−.11	49.5	−2.1	58.3	40.7	67	33	3.90	+0.30	.....
Sydney, C. B. I	29.86	29.90	−.05	52.8	−2.6	62.7	42.9	77	30	2.16	−1.07	.....
Halifax, N. S	29.84	29.94	−.01	56.8	−0.9	68.5	45.0	78	33	1.59	−2.17	.....
Yarmouth, N. S	29.91	29.98	+.03	54.0	−1.0	61.9	46.2	71	37	1.43	−1.33	.....
Charlottetown, P. E. I	29.87	29.91	−.01	55.3	−2.1	63.7	46.9	74	35	0.92	−1.75	.....
Chatham, N. B	29.88	29.90	+.01	57.6	−2.4	69.7	45.4	82	35	2.55	−0.91	.....
Father Point, Que	29.85	29.87	.00	51.8	−1.2	60.9	42.7	77	33	2.62	−0.36	.....
Quebec, Que	29.61	29.93	+.01	59.2	−2.0	70.1	48.4	85	37	3.44	−0.21	.....
Montreal, Que	29.75	29.95	+.01	63.5	−1.4	73.1	54.0	88	42	1.53	−2.00	.....
Stonecliffe, Ont	29.35	29.95	+.01	62.2	+0.6	77.6	46.9	96	31	0.86	−2.30	.....
Ottawa, Ont	29.72	30.04	+.10	62.7	−2.6	73.7	51.6	90	38	0.86	−2.06	.....
Kingston, Ont	29.71	30.02	+.05	60.0	−3.4	69.3	50.6	84	37	1.11	−1.32	.....
Toronto, Ont	29.63	30.00	+.03	64.8	+1.4	76.8	52.8	95	38	1.35	−1.45	.....
White River, Ont												
Port Stanley, Ont	29.43	30.07	+.10	62.7	−1.1	73.7	51.7	91	34	3.37	+0.64	.....
Southampton, Ont	29.34			60.2	−0.2	70.8	49.6	91	35	1.93	−0.42	.....
Parry Sound, Ont	29.34	30.02	+.06	60.9	−0.8	72.7	49.1	94	34	1.82	−0.60	.....
Port Arthur, Ont	29.29	30.00	+.06	60.0	+3.6	72.9	47.1	90	31	2.41	−0.32	.....
Winnipeg, Man	29.11	29.93	+.04	64.9	+2.7	77.0	52.8	91	34	3.27	−0.02	.....
Minnedosa, Man	28.13	29.91	+.02	63.7	+4.1	77.6	49.7	89	30	2.93	−0.07	.....
Qu'Appelle, Sask	27.66	29.88	+.01	60.6	+0.7	71.9	49.4	86	33	5.16	+1.74	.....
Medicine Hat, Alberta	27.57	29.80	−.05	68.6	+6.6	82.4	54.8	97	46	3.72	+0.96	.....
Swift Current, Sask												
Calgary, Alberta	26.36	29.83	−.01	58.8	+2.8	71.6	46.1	84	38	3.91	+1.46	.....
Banff, Alberta	25.33	29.85	+.01	54.0	+2.5	67.5	40.6	77	31	2.29	−1.04	.....
Edmonton, Alberta	27.60	29.85	+.01	59.2	+2.3	70.9	47.4	86	32	3.66	+0.80	.....
Prince Albert, Sask	28.33	29.87	.00	60.8	+3.1	73.3	48.4	84	35	1.98	−0.53	.....
Battleford, Sask	28.16	29.88	+.02	61.5	+2.0	72.8	50.2	88	35	1.70	−1.61	.....
Kamloops, B. C	28.54	29.76	−.11	63.8	0.0	75.6	51.9	88	41	2.60	+1.18	.....
Victoria, B. C	29.86	29.95	−.06	59.8	+3.5	69.4	50.2	78	43	1.05	−0.15	.....
Barkerville, B. C	25.60	29.86	−.01	51.4	+0.7	63.3	39.5	72	29	1.99	−1.49	.....
Hamilton, Bermuda	30.00	30.16	+.04	71.9	−3.1	79.5	64.3	83	65	3.10	−2.85	.....

Climatological Districts of the United States.




106 Climatological Sections of the United States.
Statute Miles
Kilometers

Chart I. Hydrographs of Several Principal Rivers, June, 1913.

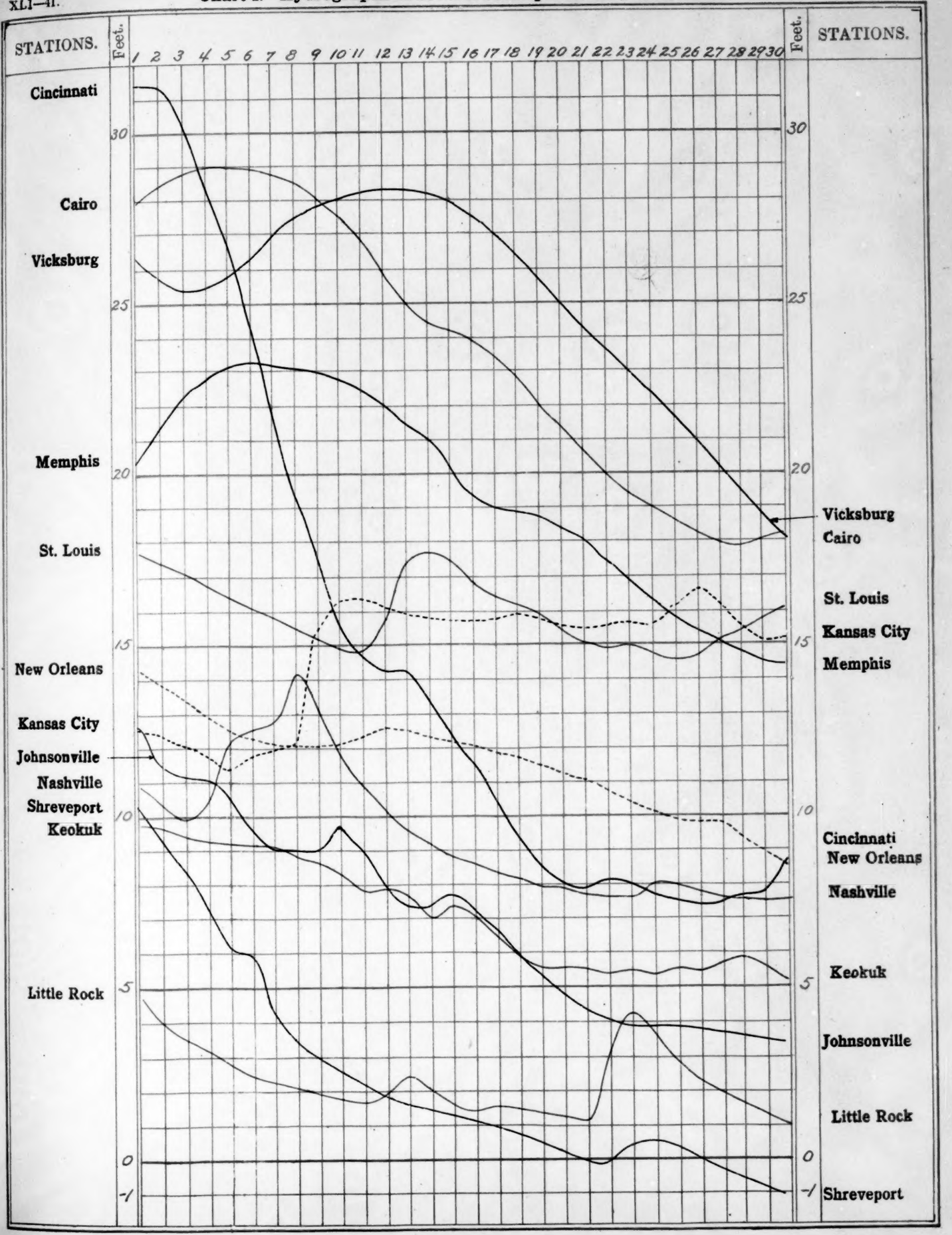


Chart II. Tracks of Centers of High Areas, June, 1913.

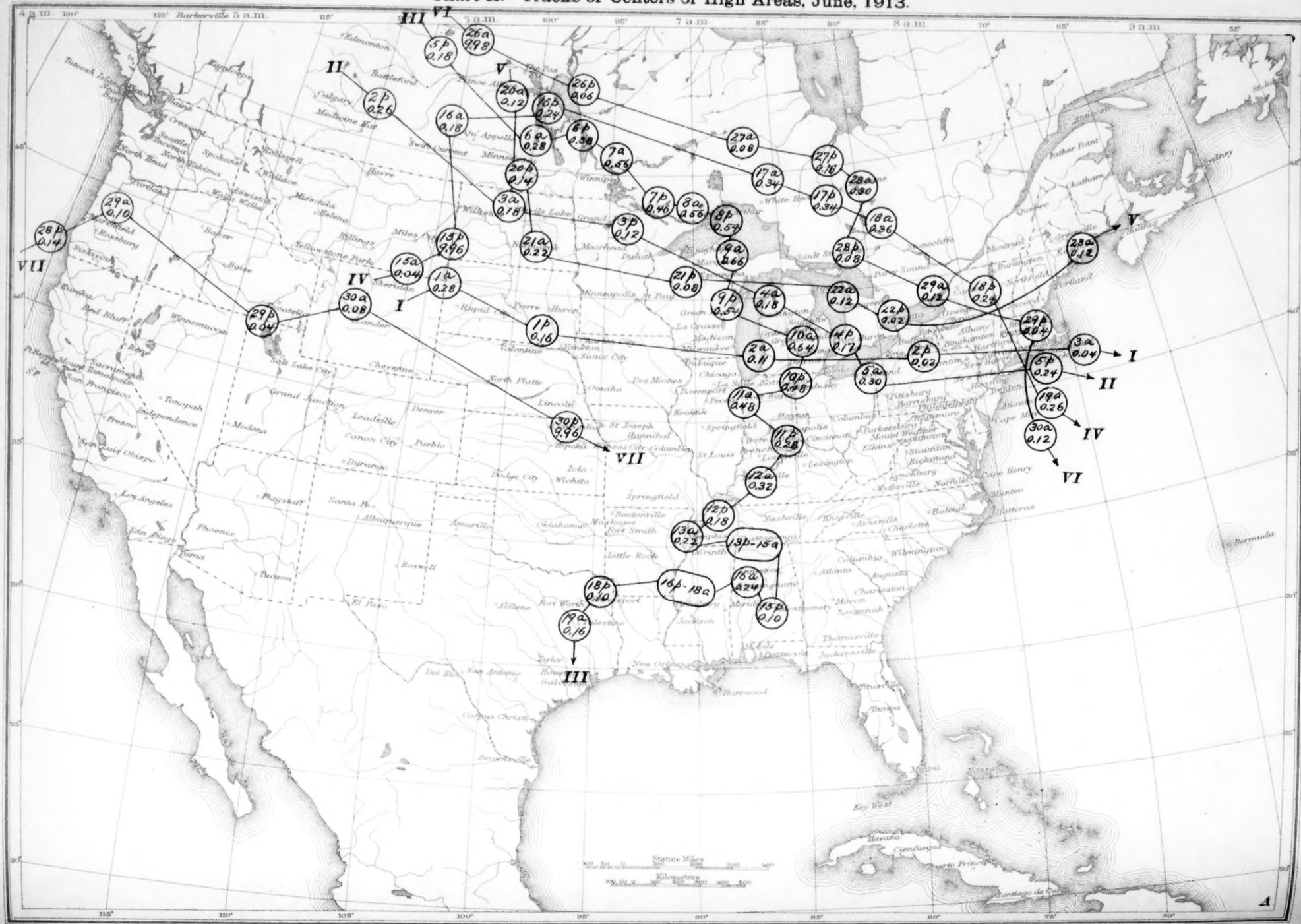


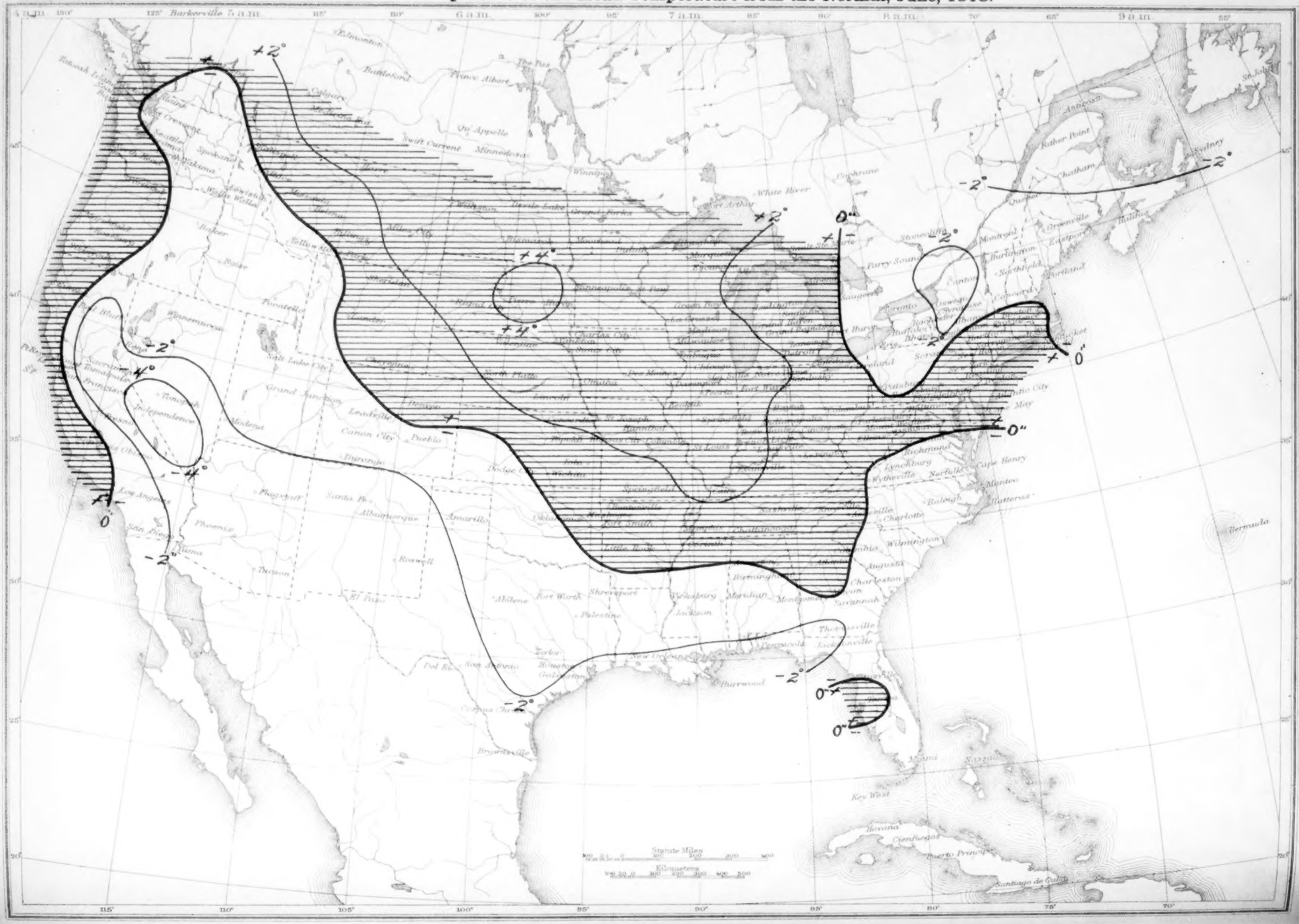
Chart III. Tracks of Centers of Low Areas, June, 1913.

Chart III. Tracks of Centers of Low Areas, June, 1913.



XLI—44.

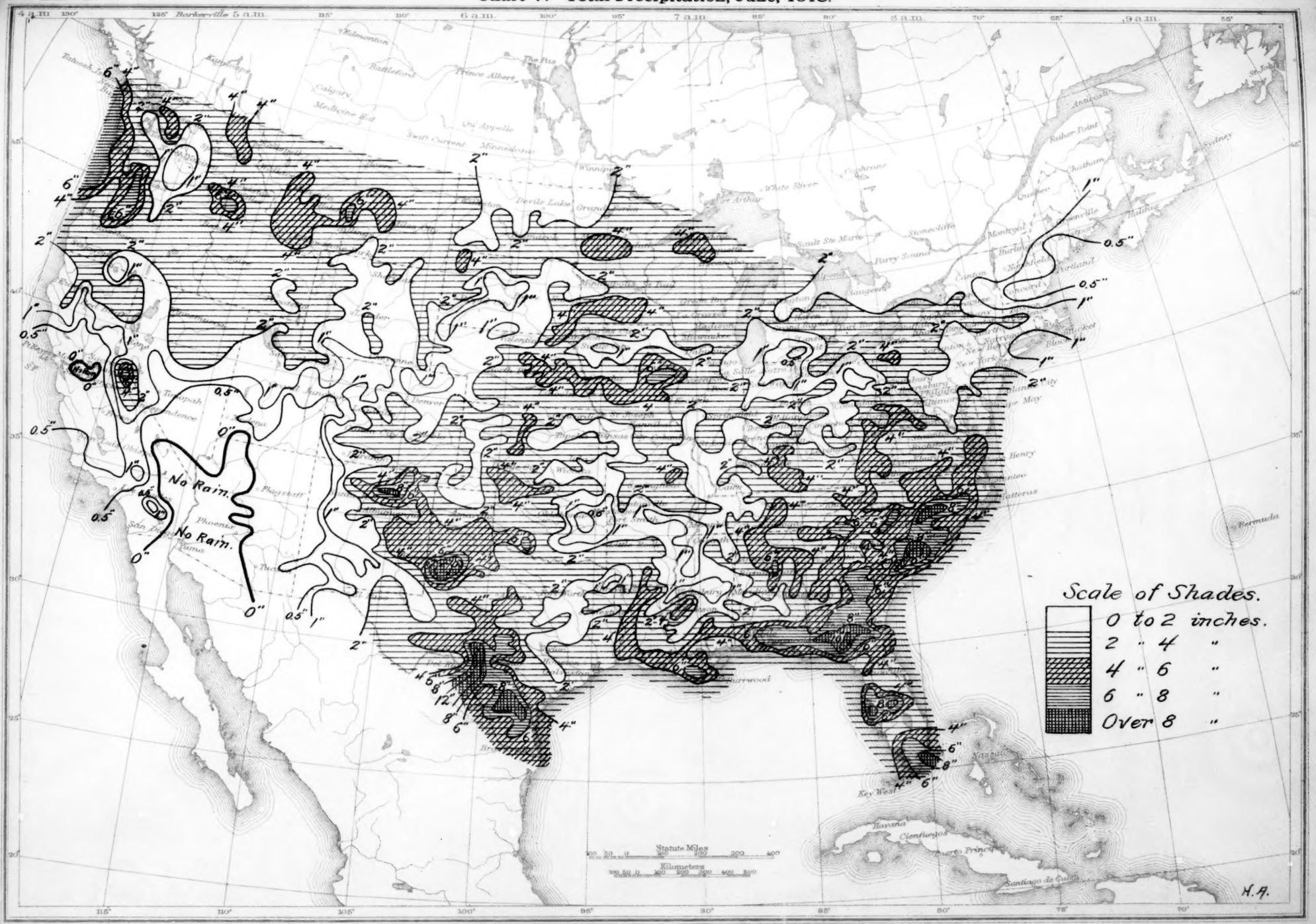
Chart IV. Departure of the Mean Temperature from the Normal, June, 1913.



XLI—45.

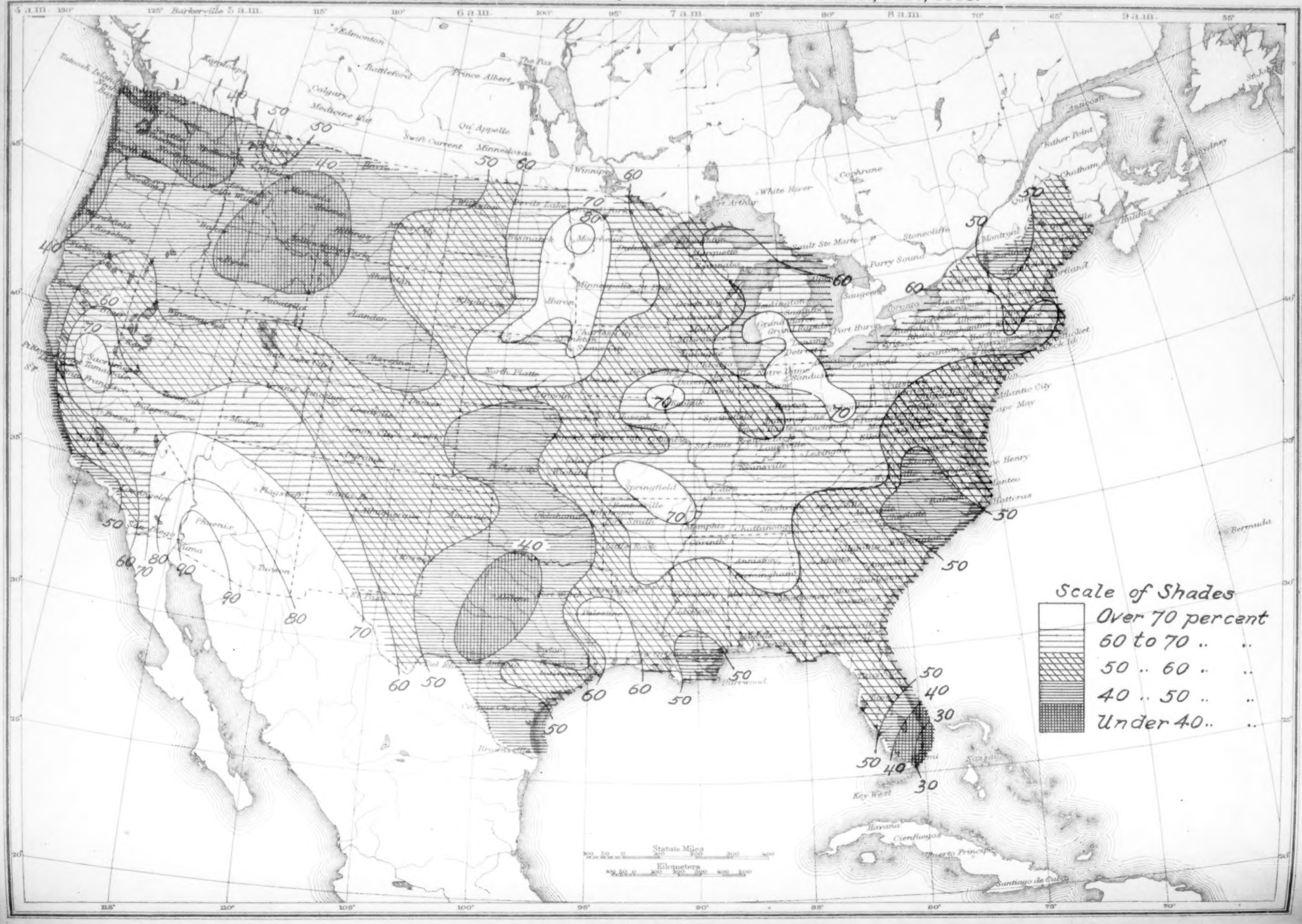
Chart V. Total Precipitation, June, 1913.

Chart V. Total Precipitation, June, 1913.



XLI—46.

Chart VI. Percentage of Clear Sky between Sunrise and Sunset, June, 1913.



XLI—47.

Chart VII. Isobars and Isotherms at Sea Level; Prevailing Winds, June, 1913.

Chart VII. Isobars and Isotherms at Sea Level; Prevailing Winds, June, 1913.

